

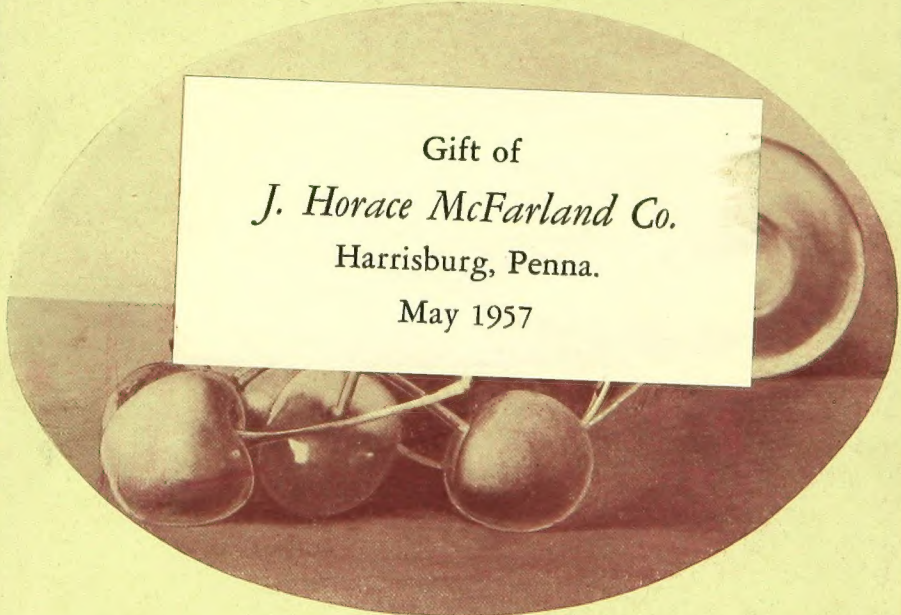
#307  
Illustrated and Descriptive  
Catalog No. 84

ESTABLISHED 1852



# Newark Nurseries

450 Acres Devoted to the  
Growing of Nursery Stock



Gift of  
*J. Horace McFarland Co.*  
Harrisburg, Penna.  
May 1957

Stuart's Bigarreau Cherries. Page 15.

C. W. STUART & CO.  
NEWARK

CHARLES W. STUART  
JAS. M. PITKIN, JR.  
CHARLES H. STUART

... NEW YORK

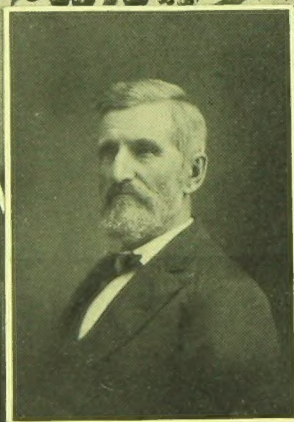




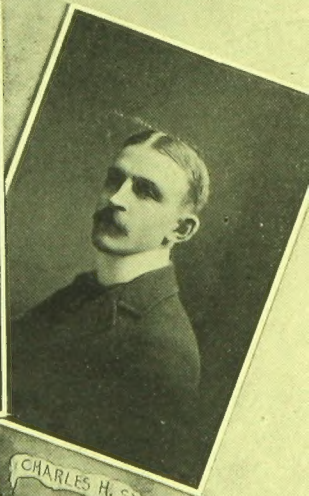
FRANK C. PITKIN, MANAGER OF A SALES DEPARTMENT



JAMES M. PITKIN, JR.



CHARLES W. STUART



CHARLES H. STUART



FRED M. PHELPS, MANAGER OF A SALES DEPARTMENT





**Ben Davis.** (See page 4.)

## SELECT APPLES.

The varieties described below are the best now in cultivation, their value having been well proved by thorough tests. The list comprises our principal stock of Apples. Our nurseries are in the very best tree-growing section to be found, where the good constitution and great hardiness of wood in the young tree is attained by a much slower growth than the **rushing overgrowth** of some portions of our country.

In our Price-list we present a list specially selected for the extreme hardiness of the tree and the excellence of the fruit—varieties that may be depended upon to produce fruit of fine quality, in abundance, in the cold sections.

The period of ripening mentioned is time of maturity in western New York; will vary some north and south of that locality.

### SUMMER APPLES.

**Early Harvest.** Sour. Yellow, not striped. **July and August.** Fruit medium size, roundish. Skin very smooth, with a few faint dots, bright straw color when fully ripe. Flesh very white, tender and juicy, crisp, rather acid flavor. Quality very good to best. Core small. An American Apple, and justly very popular on account of its beauty and excellent qualities for the table, as well as for cooking. Very productive, and is long in season. Needs rich cultivation to be fine. Good throughout the northern states.

**Early Strawberry.** Sour. Red, striped. **Middle to end of August.** Fruit medium size, mostly covered with deep red. Flesh white, slightly tinged with red next skin, tender, subacid, and very sprightly and brisk in flavor. Tree a moderate, erect grower, and a good bearer. A beautiful and excellent variety for both orchard and garden.

**Early Joe.** Sour. Red and yellow, striped. **Middle to last of August.** Fruit is medium size, or rather small, approaching conical, smooth and regular. Has numerous short, broken, red stripes on yellow ground, and a nearly uniform deep red to the sun, with conspicuous white stripes. Flesh fine-grained, very tender, slightly crisp, juicy, subacid, s. icy; quality best. Growth slow. A profuse bearer. Origin, East Bloomfield, N. Y.

**Red Astrachan.** Sour. Red, not striped. **Last of July to middle of August.** Fruit large, roundish, nearly covered with crimson, and with an exquisite bloom on the surface of the fruit, like that of the plum; an Apple of extraordinary beauty. Flesh quite white, crisp, moderately juicy, with an agreeable, rich, rather acid flavor, and first-rate quality. Ripens very early; suitable for table and kitchen. Tree a vigorous grower and regular bearer.

**Sour Bough.** See Early Harvest.



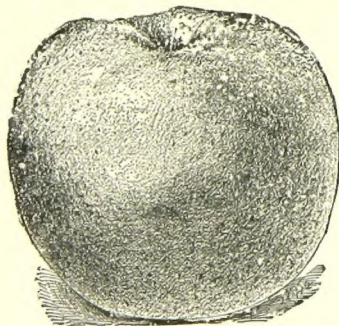
## SUMMER APPLES, continued.

**Sops of Wine.** Sour. Red, striped. August to September. Fruit medium size. Dark red. Flesh white, often stained, moderately juicy, subacid, of good flavor. An abundant bearer. Valuable for its free growth and fair fruit.

**Sweet Bough.** Sweet. Yellow, not striped. Middle July to August 10. Fruit large size, pale greenish yellow. Flesh white, very tender and crisp when fully ripe, and with a rich, sweet flavor. Tree moderately vigorous; forms a round head; a moderate bearer. Desirable as an eating Apple.

**Tetofsky.** Sour. Extra hardy. Red, striped. August. Fruit medium size, nearly round. Flesh white, very juicy and acid. Fully as hardy as the Duchess of Oldenburg, producing regularly abundant crops of beautiful fruit. Succeeds over a large extent of country; especially desirable in high latitudes, where many other varieties fail by reason of the extreme cold.

**Yellow Transparent.** Sour. Extra hardy. Yellow, not striped. July and August. Russian variety, imported by the Department of Agriculture, Washington, D. C. Tree hardy and a strong grower, and unusually young bearer. Fruit good size and good quality. Skin clear white at first, turning to a beautiful pale yellow when fully ripe. Flesh white, half fine, tender, juicy, sprightly subacid. Core medium. Parties who have fruited it extensively north and south say that it ripens earlier than any other variety, being 10 days to 2 weeks ahead of Early Harvest, making it exceedingly valuable as an early market variety.



Yellow Transparent.

## FALL APPLES.

**Alexander.** Extra hardy. Sour. Red, striped. October to December. Fruit large, streaked with bright red on greenish yellow. Flesh yellowish white, rather crisp, subacid. A coarse sort, only suitable for cooking. A moderate bearer only. This is a very handsome Russian Apple, and like all others from that country, valuable on account of its hardiness, being suited to the extreme north.

**Autumn Strawberry.** Sour. Red, striped. October to December. Fruit medium size, roundish or inclined to an oval shape. Nearly whole surface has small, broken

streaks of light and dark red. Flesh yellowish white, slightly fibrous, tender, juicy, subacid, and very pleasant and agreeable flavor. Bears young, and is loaded with crops of fine fruit. Succeeds well in the west. Ripens in early autumn, and keeps until winter.

**Chenango Strawberry.** For description, see Sherwood's Favorite.

**Duchess of Oldenburg.** Extra hardy. Sour. Red, striped. September. Fruit large, roundish, a little flattened at ends. Streaked with red and yellow. Flesh yellowish white, juicy, subacid. Ripens early in the fall. Fruit fair and handsome. Tree a vigorous grower, having fine, large foliage; bears abundantly, and when very young. Succeeds in nearly all sections of the country, and is as valuable in the extreme north as it is in the south. Of Russian origin, and as hardy as any known variety.

**Fall Pippin.** Sour. Greenish yellow, not striped. October to December. Fruit large, roundish oblong. Color greenish, becoming a high, rich yellow when ripe. Flesh yellowish, rather firm, becoming tender, and with a rich aromatic flavor. Tree a good grower and moderate bearer. Excellent for cooking. A fine fruit, and succeeds in nearly all sections.

**Fameuse, or Snow.** Sour. Red, striped. October to January. Fruit medium size, roundish, somewhat flattened even. Color, whitish ground, handsomely striped and blotched with fine, deep red, and where much exposed to sun a deep, nearly uniform red. A very celebrated Canadian fruit, remarkable for the snow-white color of its flesh. Is very tender, crisp and juicy, a little spicy, with a slight perfume. Much admired as a table fruit for its handsome appearance and pleasant, refreshing flavor. Brings a good price in market as a dessert Apple. Tree a good grower, hardy, and a regular bearer of handsome fruit. Valuable in Canada and the northern states.

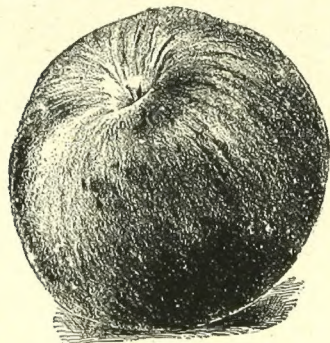
**Gladstone.** Hardy. Sour. Red, striped. September. A very handsome Apple, resembling the Duchess of Oldenburg. Good quality. Tree is a strong grower, very hardy, and especially adapted to northern sections, where hardy varieties are required. Fruit large. Skin smooth, washed and streaked with red on a yellow ground. Flesh juicy, sprightly subacid; good.

**Gravenstein.** Sour. Greenish yellow, striped. September and October. Fruit large, roundish. Surface a little waxy, striped and splashed with bright red on yellow ground. Flesh tender, juicy and crisp, with a slight aromatic flavor, and of first quality. Tree vigorous and productive, bearing regular crops of finely shaped, handsome fruit. Fine in all localities. German origin.

**Maiden's Blush.** Sour. Yellow, not striped. August to October. Fruit rather large, oblate, smooth and regular, with a fine, evenly shaded red cheek or blush on a clear, pale yellow ground. Flesh white, fine-grained, tender, pleasant subacid, but not rich. Tree spreading. Although deficient in richness, it is valued for its fair, tender, beautiful fruit and uniform productiveness. Valuable in the west.



**Munson's Sweet.** Sweet. Yellow, not striped. October and November. Fruit medium size to large, smooth and regular. Pale yellow, with a brown blush. Tree a vigorous grower and uniform bearer. A valuable sweet Apple. Flesh yellowish white, tender, with a very good, sweet flavor.



**Wealthy.**

**Pound Sweet.** Sweet. Greenish, not striped. October to December. Fruit very large, round. Pale green. Excellent for baking and culinary purposes. Flesh white, sweet, tender, not juicy. Moderate quality. Tree a free grower and productive. Also called Pumpkin Sweet.

**Pumpkin Sweet.** See Pound Sweet.

**Rambo.** Sour. Yellow, striped. October to December. Fruit medium size, round, flat and smooth. Streaked and marbled with dull, yellowish red on pale yellowish ground. Flesh greenish white, very tender, rich, mild subacid. Of very good quality. Fine in nearly all localities.

**Red Bietzheimer.** Hardy. Sour. Red, not striped. September. A valuable German variety. Fruit large, roundish, inclined to conical. Skin dark yellow, covered with purplish crimson. Flesh white, firm, subacid, with a brisk, pleasant flavor. Tree a free grower and an abundant bearer.

**Rolfe.** Hardy. Sour. Red, not striped. September and October. Tree a strong grower and annual bearer. Fruit large and handsome. Red on yellow ground. Flesh light color, subacid. Core small. Origin, Maine.

**Smokehouse.** Yellow, striped. Middle of October to February. Fruit is above medium size, roundish. Skin yellow, shaded and splashed with crimson. Flesh yellowish, somewhat firm, juicy and crisp, rather subacid. Valuable for culinary purposes. Quality good. Tree moderately vigorous, and a good bearer. Succeeds in the middle states. Originated in Lancaster county, Pa.

**Sherwood's Favorite (Chenango Strawberry).** Sour. Yellow, striped. September and October. Fruit large, angular. Striped and splashed with light crimson on whitish yellow ground. Flesh white, juicy, very mild and tender, slightly subacid. Very much esteemed for the table. Origin Chenango county, N. Y.

**Snow.** For description, see Fameuse.

**Stump.** Sour. Red, striped. August and September. Fruit good size. Color pale yellow, striped and splashed with bright red; exceedingly fair and beautiful, and of excellent quality. Tree a vigorous grower and an abundant bearer. The fruit, from its uniform size and perfection, handsome appearance and mild, sprightly subacid flavor, is most attractive and valuable for home use, and commands ready sale in the market at the highest prices. Origin, Monroe Co., N. Y.

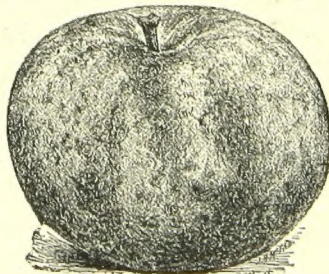
**Twenty-Ounce.** Sour. Red and yellowish green, striped. October and December. Fruit very large. Surface sometimes smooth, often very wavy. Color, striped rich yellowish red on greenish yellow background. Flesh coarse-grained, sprightly, brisk subacid. Very showy, fair and productive. A profitable market Apple. Origin, western N. Y.

**Wealthy.** Extra hardy. Sour. Red, not striped. November to January. Fruit medium size, roundish oblate. Color whitish yellow ground, shaded with dark, rich red, sometimes entirely covered with red. Flesh white, fine grained, sometimes stained with red; tender, juicy, lively, subacid. Quality very good. Core small. A beautiful and excellent fruit. Tree extremely hardy; a good grower and an abundant bearer, and a remarkably profitable market Apple, bringing good prices. This Apple is sustaining a high reputation throughout the country. Origin, Minnesota.

## WINTER APPLES.

**America.** Extra hardy. Sour. Red, not striped. December to February. Good size. Color deep red. The originator says it keeps perfectly with him until February or March. Perfectly hardy in western New York. An excellent keeper.

**Arkansas.** Sour. Red, striped. January to April. Fruit medium size, slightly conical, regular, smooth. Color glossy yellow, generally covered with deep crimson. Flesh yellowish, fine grained, firm, juicy, subacid. Quality rich, very good. Tree a good bearer. A commanding market Apple. Origin, Ark.



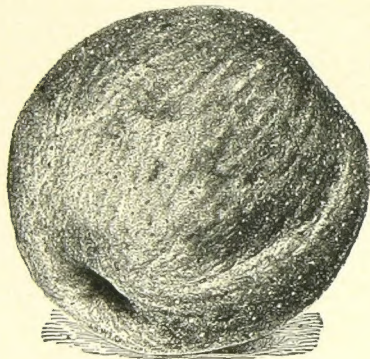
**Arkansas.**

**Baily's Sweet.** Sweet. Red, striped. November to April. Fruit large, the whole surface frequently a full, bright red, in small, broken, indistinct stripes and dots, on light ground. Flesh very tender, not juicy; flavor mild, rich, sweet, fine. Tree a vigorous, upright grower and a good bearer. Origin, Wyoming county, N. Y.



## WINTER APPLES, continued.

**Boiken. Sour. Red, not striped. Keeps well till May.** One of the youngest, hardiest and healthiest varieties of Apple grown. It developed fine, large, well-developed specimens of fruit on trees in the nursery row one year from bud. Fruit medium size, roundish. Color bright yellow, with rosy red cheeks, resembling Maiden's Blush. Flesh white. Is said to be scab-proof, requiring no spraying to produce fine fruit, and the foliage is said to be so healthy as to withstand the attacks of fungi. The trees have not been attacked with fungus in the nursery row, and have needed no spraying. Origin, Russia.



Boiken.

**Baldwin. Sour. Red, striped, November to March.** Fruit rather large, shaded and striped with yellowish red and crimson on yellow ground. Flesh yellowish white, with a rich subacid flavor. Tree very vigorous and productive. Very popular in most of the northern states, and more extensively grown than any other variety.

**Bismarck. Color, red striped. Season, October to January.** Fruit good size, good quality. Tree begins to bear when quite young, and is a prolific bearer. Excellent for cooking. Origin, New Zealand.

**Baxter. Extra hardy. Sour. Red, not striped. November to March.** Fruit above medium size. Color dark red, spotted. Mild subacid; quality good. Originated in Canada, on the banks of the St. Lawrence.

**Belle de Boskoop. Extra hardy. Sour. Red, striped. Season, February to April.** Mr. Downing says: "A new variety, said to be of Russian origin. Tree vigorous, spreading; comes into bearing moderately early, and produces abundantly in alternate years. Fruit medium to large, roundish oblate. Skin yellow, shaded with light and dark red over nearly the whole surface, some specimens more or less mixed with russet. Flesh a little coarse, crisp, tender, brisk subacid, of very good quality. Core small and close.

**Bellflower. Sour. Yellow, not striped. December to February.** Fruit large. Yellow, with a tinge of red on the sunny side. Flesh tender, juicy, crisp, with a sprightly subacid flavor, and when not fully ripe quite acid.

An excellent winter Apple, and is highly esteemed as a market fruit. Tree hardy and a vigorous grower, succeeding well on light, sandy soils.

**Ben Davis (New York Pippin). Sour. Red, striped. December to March.** Fruit large, roundish, sometimes conical, smooth. Striped red on yellow. Flesh white, tender, juicy, with a mild, good but not rich subacid flavor. A very popular Apple in parts of the west and southwest, and is much planted for market, as it commands a high price, and is profitable because of its young bearing qualities. Keeps till midwinter or later. See cut, page 1.

**Bottle Greening. Sour. Green, not striped. December to March.** Resembles Rhode Island Greening, but tree a better grower, much hardier, and a later keeper. Remarkable for its long keeping qualities. We have had good fruit as late as April 20. Native of Vermont.

**Canada Red (Steel's Red). Sour. Red, striped. November to May.** Medium size. Red, with white dots. Flesh rich, subacid. Tree a moderate, slender grower.

**English Russet. Sour. Greenish yellow, not striped. January to June.** Fruit medium or rather small, roundish conical, regular. Surface more or less overspread with brownish russet on light, greenish yellow ground; in large, exposed specimens, wholly russeted. Flesh greenish or yellowish white; texture fine, with an aromatic, subacid flavor. Keeps through spring, and often through summer, for 12 months.

**Fallawater. Sour. Green, not striped. November to January.** Fruit rather large, globular. Color yellowish green, dull red cheek, with a few large, whitish dots. Flesh juicy, white, rather fine-grained, crisp, pleasant, subacid flavor. Tree a strong grower, very productive, even while young. Also known as Tulpahocken.

**Gano. Sour. Red, not striped. February to May.** Fruit of conical form, good size and smooth. Color deep red, shaded on sunny side to mahogany; very attractive. Flesh pale yellow, fine-grained, tender, pleasant, mild, subacid. A good shipper and keeper. Tree healthy, vigorous and hardy. Annual and prolific bearer. Origin, Missouri.

**Gideon. Extra hardy. Sour. Yellow, not striped. October to December.** Raised from seed of a seedling crab by that veteran fruit grower, Peter M. Gideon, of Excelsior, Minn., and to use his language, "is as hardy as a native oak." The fruit is of a rich, golden yellow, with a very clear skin and a handsome rosy blush. Resembles Yellow Bellflower, though it will average a little smaller. Flesh juicy and fine, with an excellent subacid flavor. Ranks well as an eating Apple, and its handsome, showy appearance makes it a most tempting fruit. While its crab origin seems to be thoroughly developed in the hardy, rugged character of the tree, there is no trace of this in the fruit, which is in every respect a fine eating Apple. Originated in Minnesota, the same region that has given us several extra hardy Apples.

**Greening.** See Rhode Island Greening.



**Gilliflower.** Sour. Red, striped. January to April. Fruit rather large, oblong-ovate or long-conical. Surface dark, dull, reddish purple, inclining to greenish yellow where densely shaded. Flesh greenish white, with a rich, good, slightly subacid flavor. Flesh becomes dry when fully ripe. Keeps through winter and late into spring. A good baking Apple.

**Golden Russet.** Sour. Yellow, not striped. November to April. Medium size, roundish, usually a little oblong, sometimes slightly flattened. Surface sometimes wholly a thick russet, and at others a thin, broken russet on a greenish yellow skin. Flesh whitish yellow, fine-grained, rather compact, sprightly, mild subacid; good to very good. A thrifty grower and excellent bearer. A most hardy and valuable variety. Succeeds in most all sections, and especially in rich western soils.

**Grimes' Golden.** Extra hardy. Sour. Yellow, not striped. December to February. Fruit is above medium size, round or slightly oblong. Rich golden yellow, sprinkled with large russet dots. Flesh yellowish white, crisp, tender, rich and juicy, with a mild subacid flavor. Tree hardy, vigorous and productive. It succeeds over a large extent of country, and endures severe cold without injury.

**Hubbardston Nonsuch.** Sour. Red-yellow, striped. November and December. Fruit large. Color, small broken stripes and numerous dots of light, rich red on a rich yellow ground. Flesh yellowish, very rich, slightly subacid, with a strong mixture of a rich, sweet flavor; the finest quality and very valuable. A famous New England sort—fine at the North and Northwest. A native of Massachusetts.

**Jonathan.** Sour. Red, striped. Season, November to March. A beautiful dessert Apple. Fruit of medium size, regularly formed, roundish and slightly conical. Skin clear and smooth, the ground color being clear, light yellow, nearly covered by lively red stripes, deepening into brilliant or dark red in the sun. Flesh white, sometimes a little pinkish, very tender and juicy, with a mild, sprightly flavor. Hardy, productive, moderately vigorous. Fruit is one of the best in quality, and profitable for table or for market. Originated, Kingston, New York.

**King (King of Tomkins County).** Sour. Red, striped. November to March. Fruit large to very large, roundish. Color a deep red in stripes, making a handsome appearance. Flesh tender, juicy, rich, high flavored. Commands a high price in market. Tree a strong grower; bears abundantly. Inclined to drop its fruit rather early, and should be gathered soon. Succeeds east and west at the North, but not so well in the far South.

**Langford's Seedling.** Sour. Yellow, striped. January to March. Fruit medium size to large. Color yellow, striped, and nearly covered with bright red. Flesh firm, juicy, mild subacid. One of the best of the late keepers. Origin, Maryland.

**Longfield.** Extra hardy. Sour. Yellow and pink, not striped. December to March. A free, upright grower, a young and abundant bearer. Fruit medium size, round. Color yellow, flushed pink, a decided blush on

the sunny side. Flesh white, rich, sprightly subacid. Quality good. Russian origin.

**Magog Red Streak.** Extra hardy. Sour. Red, striped. December to March. Tree very thrifty and vigorous, of extreme hardiness, and of great productiveness. Fruit medium size, roundish. Skin light yellow, shaded and faintly striped and splashed with light red over half the fruit. Flesh yellowish, moderately juicy, mild subacid. A very long keeper. Origin, Vermont.

**Mann.** Extra hardy. Sour. Greenish yellow, not striped. January to April. Fruit medium to large, nearly round. Deep yellow when ripe, with brownish red where exposed. Flesh tender and juicy, with mild, pleasant, subacid flavor. Tree hardy, a good grower, and a young and regular bearer. Keeps well. Popular in the colder localities. Originated in northern New York.

**McIntosh Red.** Extra hardy. Sour. Red, not striped. November to February. An exceedingly valuable, hardy Canada sort. Fruit medium size, roundish, nearly covered with rich red on light yellow skin. Flesh white, fine, very tender, juicy and refreshing, with a peculiar, quince-like flavor. A good bearer of fair, handsome fruit. Resembles the Fameuse, but larger and more hardy, and fully equal in quality.

**Newtown Pippin.** Sour. Yellowish green, not striped. December to May. Fruit medium size or rather large, roundish, oblique. Dull green, becoming yellowish green, often with a dull brownish blush. Flesh greenish white, juicy, crisp, fine-grained, with a high, fine flavor. Keeps through spring, and retains its freshness remarkably. Tree of rather slow growth, with a rough bark; slim and small when delivered. The fruit is very liable to black spots or scabs, unless under high, rich and constant cultivation. One of the best fruits for foreign markets. Rarely succeeds well in New England. Tender far west. A native of Long Island, N. Y.

**Northern Spy.** Sour. Red, striped. January to June. Fruit large, roundish, somewhat conical in shape. Handsomely striped and covered with crimson on the sunny side, overspread with a thin bloom. Flesh juicy, flavor rich, aromatic, mild subacid, fine. Keeps through winter and late into spring; preserves its flavor remarkably fresh. A tardy bearer. To afford fine fruit, the tree must be kept thrifty by good cultivation. A fruit of highest quality, profitable for market under proper cultivation, with care in picking, assorting and packing. Succeeds in the north and northwest; less valuable farther south. A native of East Bloomfield, N. Y.

**Northwestern Greening.** Extra hardy. Sour. Greenish yellow, not striped. January to spring. This new Wisconsin seedling Apple, which received the first prize of the Wisconsin State Horticultural Society over a large competition as a seedling Apple, has been thoroughly tested in most trying places in Wisconsin, and proves to be equal to the Wealthy in every respect as a tree, and has the added merit of being a late keeper. Fruit medium to large, round ovate to conical, smooth. Greenish yellow. Flesh fine-grained, firm, juicy, subacid, good. Valuable for the north. Origin, Wisconsin.



## WINTER APPLES, continued.

**Ontario. Sour. Red, striped. January to April.** A hybrid, resulting from the crossing of the Northern Spy and Wagener. Fruit tender and juicy, of mild subacid flavor. Bears young, annual crops of good uniform size. Keeps until April. Undoubtedly one of the most desirable hardy varieties yet introduced, and in the future is bound to command a high price in the British market. Bears young, like the Wagner. Origin, Ontario, Canada.

**Paradise Winter Sweet. Sweet. Green, not striped. November to April.** Fruit rather large, regularly formed, roundish. Color pale greenish yellow, with a brown blush. Flesh white, fine grained, juicy, sweet, sprightly, and very good. Succeeds well at the west. Origin, Pennsylvania.

**Pewaukee. Extra hardy. Sour. Red, striped. December to March.** Fruit medium to large, round. Color, striped with red, on a bright yellow skin. Flesh yellowish white, juicy, subacid; in quality something like Jonathan. Tree a strong grower, and very hardy; adapted to the extreme north, and equally as valuable for southern culture. A seedling from the Duchess of Oldenburg.

**Perry Russet. Sour. Yellow, not striped. November to December.** Fruit medium size, rounded. Color pale yellow, netted with russet on the sunny side, and sometimes brownish. Flesh yellow, firm, juicy, subacid. Tree a moderate spreading, upright grower, hardy, and a young and abundant bearer. Origin, Perry, N. Y.

**Quebec Winter Sweet. Extra hardy. Sweet. Yellow, not striped. December to March.** About the size of the Talman Sweet. Color yellow, with red cheeks. Splendid quality, and very hardy. Originated in the province of Quebec, Canada.

**Rawle's Jenet. Sour. Yellow, striped. January to April.** Fruit medium size, roundish, oblong. Color pale red, distinct stripes, on light yellow ground. Flesh nearly white, fine, mild, subacid; fine texture, crisp, juicy. Growth slow. A profuse bearer, with a portion of the crop knotty or under size. Keeps through spring. Highly esteemed in the Ohio valley; does not succeed farther north. The blossoms open 10 days later than usual, thus sometimes escaping spring frosts. Hardy far west. One of the most popular Apples in the South and Southwest.

**Rome Beauty. Sour. Red, striped. November to February.** Fruit large, roundish, very slightly conical. Mostly covered with bright red on pale yellow ground. Flesh tender, not fine-grained, juicy, of good quality. Ripens early in winter. The large size and beautiful appearance of this new Ohio Apple render it popular as an orchard variety.

**Rhode Island Greening. Sour. Green, not striped. November to March.** Fruit large, roundish, often a little flattened. Color green, becoming greenish yellow; all ways fair. Flesh yellow—a rich yellow if much exposed to the sun, and whitish yellow or greenish white if much shaded—tender, juicy, with a rich, rather acid flavor. Growth strong; young trees crooked. Very produe-

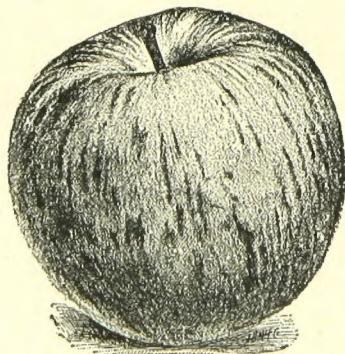
tive, single trees sometimes yielding 40 bushels of fair fruit in favorable years, and orchards 500 bushels per acre. Tender far west. Succeeding well in all northern sections and on a great variety of soils. A crooked-growing tree in the nursery.

**Roxbury Russet. Sour. Yellow russet, not striped. January to June.** Fruit medium to large, roundish, sometimes a little flat. Partly or wholly covered with rather rough russet on greenish yellow ground, sometimes a dull brown cheek. Flesh greenish white, rather granular, slightly crisp, with a good subacid flavor. Keeps late in spring, commanding then a good price. Although not of the highest flavor, its productiveness, uniformly fair fruit, and long keeping quality, render this variety one of the most profitable for orchard culture. It succeeds well throughout the northern states, but partially fails in a few localities at the west.

**Salome. Extra hardy. Sour. Red, striped. Keeps until June.** Tree very hardy, healthy, vigorous and productive. Bears when young. Fruit medium size, roundish, conical. Skin pale yellow, striped and shaded light and deep red. Flesh whitish yellow, tender, juicy, mild subacid, slightly aromatic; very good. A long keeper. A valuable new western Apple. Origin, Illinois.

**Scott's Winter. Extra hardy. Sour. Red, striped. Keeps until June.** A valuable variety which originated in Vermont, and is, like the Magog Red Streak, hardy in the severest climate; tree a thrifty grower; a young and profuse bearer. Fruit medium size, roundish. Surface deep red and light red in blotches and streaks. Flesh yellowish white, slightly reddened near the skin; rather acid and good in quality. Pronounced by Doctor Hoskins, of Newport, Vt., as his most profitable market Apple.

**Steel's Red.** See Canada Red.



**Stark.**

**Stark. Sour. Red, striped. January to May.** Tree a vigorous grower. Fruit large, roundish. Skin greenish yellow, shaded and striped with light and dark red nearly over the entire surface, and thickly sprinkled with light brown dots. Flesh yellowish, coarse, moderately juicy, mild subacid. Valuable as a keeper. Origin, Ohio.





Sutton Beauty.

**Seek-No-Further.** Sour. Red, striped. October to February. Fruit medium to large, roundish. Obscurely striped with light dull red, more or less russeted, rarely covered with russet. Flesh white, fine grained, tender, with a rich, spicy flavor; quality very good. Tree productive, fruit always fair. It succeeds well in the northern states.

**Smith's Cider.** Sour. Red, striped. December to March. Fruit medium or rather large, roundish oblong, somewhat flattened at the ends. Shaded and slightly striped with light red on pale greenish yellow, with a few conspicuous whitish, yellow dots. Flesh whitish, tender, crisp, with a subacid, moderate flavor. Grown in Pennsylvania and the Ohio valley. Valued for its hardiness, productiveness, and handsome fruit.

**Spitzenburg (Esopus).** Sour. Red, striped. December to March. Fruit medium size, slightly conical. Surface a high, rich red rather obscurely striped. Flesh yellow, firm, crisp, spicy, rather acid, and unequalled in its high, rich flavor. Keeps through winter. Usually a moderate bearer. The tree is a poor grower in the nursery, and consequently less grown than others, but the quality of the fruit makes it a general favorite. Succeeds best in New York, its native state.

**Sutton Beauty.** Sour. Yellow, striped. December and January. Fruit large, roundish. Skin waxen yellow, striped with crimson. Flesh tender, subacid. Good tree; a free grower and productive. *A valuable new Apple, that is proving as profitable as the Baldwin for orchard purposes.* Origin, Worcester, Mass.

**Tallman Sweeting.** Sweet. Yellow, not striped. November to March. Fruit medium size or rather large, round, slightly conical. Color clear, light yellow, with a clear, brownish, distinct line running from stalk to apex. Flesh quite white, rather firm, fine-grained, with a rich, sweet flavor. A very popular and productive orchard Apple, from the hardiness of the tree and its great productiveness. Keeps into spring.

**Tulphackon.** See Fallwater.

**Wagener.** Sour. Red, striped. December to March. Fruit medium size, roundish oblate. Shaded and indistinctly striped with pale red, and a full deep red in the sun on a warm, yellow ground; often streaked with russet. Flesh yellowish, fine-grained, tender, compact, mild subacid, aromatic, excellent. Ripens through winter. Succeeds well at the west. Origin, Penn Yan, N. Y.

**Walbridge.** Extra hardy. Sour. Red, striped. February until May. Fruit medium size, handsome, round-conic. Color pale yellow, with a pale red cheek. Quality good. Tree a vigorous grower and productive; hardy, and desirable for planting in northern sections, having stood uninjured in Minnesota. Ripens through late winter. Origin, Illinois.

**White Pippin.** Sour. Greenish yellow, not striped. January to March. Fruit large, roundish oblong, flattened at ends. Color light, greenish yellow. Flesh yellowish white, subacid. Good, but not very rich. Tree a vigorous grower and bearer.

**Wine Sap.** Sour. Red, striped. December to April. Size of fruit medium, round, slightly conical, sometimes obscurely flattened. Color a lively, deep red. Flesh yellowish, firm, crisp, with a rich subacid or rather acid flavor. Keeps through winter. One of the best Apples for baking. Very good.

**Willow Twig.** Sour. Yellowish green, striped. April to May. Fruit large, roundish, slightly conical. Color greenish yellow, striped and mottled faintly with dull red. Flavor subacid, or rather acid, not rich. A long keeper. Flesh firm, rather tough; a young bearer.

**Wolf River.** Extra hardy. Sour. Red, striped. January to February. One of our hardy varieties, that may, without doubt, be classed as an "ironclad." Tree a strong grower, a great bearer, and perfectly hardy. Fruit large, conical. Color yellowish white, splashed with bright red; dots large, scattering, light gray. Flesh yellowish white, coarse, tender, dry when ripe, subacid, not rich, medium quality only. Valuable in the north-west. Originated near Wolf River, Wisconsin.



## SELECT CRAB APPLES.

These varieties are entirely hardy, and while they will endure the greatest degree of cold, they will also thrive equally well in the Middle or southern states. Crab fruit is valuable for cider, preserves and canning, and some of the improved varieties are pleasant and rich for the dessert. Crab fruit is profitably grown for market.

**Excelsior.** Extra hardy. Red, striped. October. A valuable seedling of Mr. Gideon's, raised from the seed of the Wealthy, which is already known as one of the handsomest, hardiest and best flavored of our newer fruits, and it partakes of many of the best characteristics of the parent variety. Ripens in early fall, a little later than the Duchess of Oldenburg. Size of fruit about that of Fameuse, and very handsomely colored; is a shade or two lighter than the Wealthy, while it closely resembles it in quality and in the form and growth of the tree.

**General Grant.** Extra hardy. Red, striped. October and November. Fruit large, round. Color yellow, covered with stripes of red, and when exposed to the sun turning quite dark. Flesh white, fine grained, mild subacid. Tree a good grower, hardy and productive. In season during late autumn.

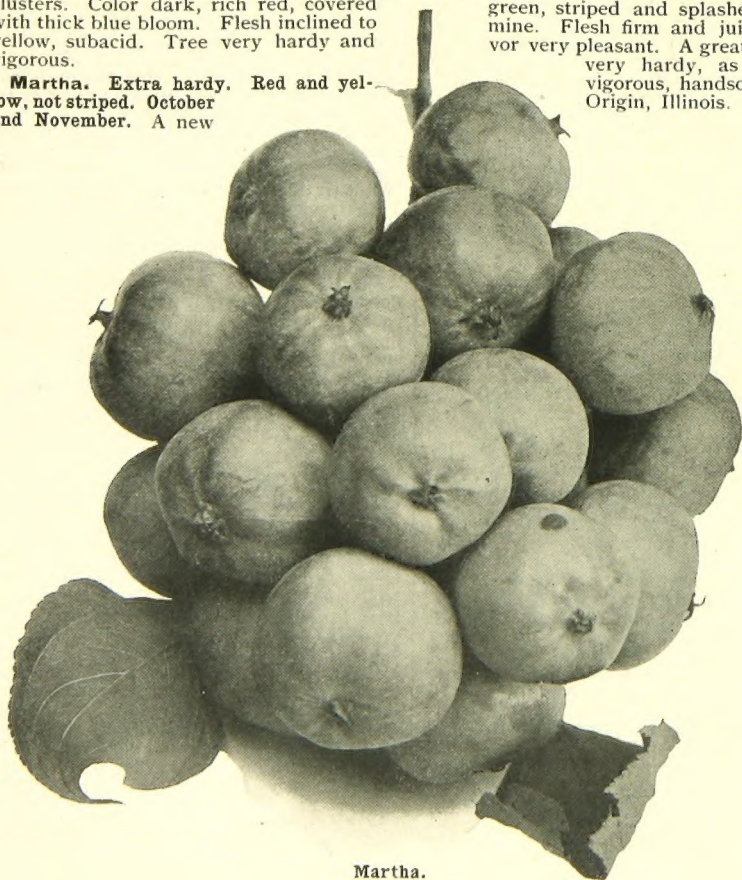
**Hyslop.** Red, not striped. November. Fruit large, roundish ovate, and produced in clusters. Color dark, rich red, covered with thick blue bloom. Flesh inclined to yellow, subacid. Tree very hardy and vigorous.

**Martha.** Extra hardy. Red and yellow, not striped. October and November. A new

crab raised from the seed of the Duchess of Oldenburg by P. M. Gideon, of Minnesota. Mr. Gideon says: "A rapid, stiff grower, a perfect pyramid in form; a great bearer of the most beautiful fruit we ever grew; a bright, glossy yellow, shaded with light, bright red; a mild, clear tart, surpassing all other crabs we ever grew for all culinary purposes, and fair to eat from hand." We regard it as very valuable.

**Transcendent.** Red-yellow, not striped. September to October. Fruit medium size to large, roundish oblong. Color golden yellow, with a rich, crimson-red cheek, covered with a delicate white bloom; at ripening, the red nearly covers the whole surface. Flesh yellow, crisp, and, when fully ripe, pleasant and agreeable. In season early in autumn. Tree perfectly hardy and a young and abundant bearer.

**Whitney No. 20.** Red, striped. August. Fruit of medium size. Skin smooth, glossy green, striped and splashed with carmine. Flesh firm and juicy, and flavor very pleasant. A great bearer and very hardy, as well as a vigorous, handsome grower. Origin, Illinois.



Martha.





Sheldon. (See page 12.)

## SELECT PEARS.

THOROUGHLY TESTED VARIETIES THAT HAVE PROVED VALUABLE.

**Gathering Pears.**—Nearly all Pears should be picked from the tree *before* maturity, and ripened in the house. **Summer Pears** should be picked at least a week or 10 days before they are ripe. **Autumn Pears** two weeks before they are ripe. **Winter Pears** should be picked before there is any danger of frost.

When the tree bears abundantly, it is best to thin the fruit well when it is about one-third grown; the remaining specimens will be greatly improved.

Under a separate head, on page 13, will be found a list of varieties that thrive as Dwarf Pears; that is, they do well grown upon French quince stock for their roots.

## STANDARD PEARS.

### SUMMER.

**Bartlett.** August and September. Fruit quite large, somewhat pyramidal in shape. Surface wavy, clear yellow, sometimes a faint blush. Flesh nearly white, fine-grained, exceedingly tender and buttery, with a nearly sweet, sometimes faintly subacid, fine, moderately rich flavor. Ripens end of summer and beginning of autumn, and far north is strictly an autumn Pear. The fruit, when not fully grown, ripens and becomes of good quality if kept in the house a week or two. Tree very productive, and bears very young. The many fine qualities of this Pear render it a general favorite. Succeeds over a large extent of territory.

**Clapp's Favorite.** Extra hardy. Late August to Early September. Supposed to be a cross between Bartlett and Flemish Beauty. Fruit of large size, tapering to the crown, neck rather small. Skin smooth, yellowish green, becoming yellow, dotted and shaded with red to the sun. Flesh greenish or yellowish white, juicy, melting, perfumed, of very good quality. Ripens the end of August and beginning of September, or about a week before the Bartlett. Fruit is of uniform size and evenly distributed over the tree. It is equally hardy with Flemish Beauty, and is also a good grower and productive. *Pick the fruit at least ten days before it would ripen upon the tree.* Origin, Dorchester, Mass.



**Beurre d'Anjou.****SUMMER PEARS, continued.**

**Doyenne d'Ete.** Season August. Fruit small. Color yellow, with a blush on the sunny side. Melting and sweet, with pleasant flavor. Tree a strong grower and very productive.

**Koonce.** Season last of August. Fruit medium to large. Color golden yellow, with red cheek; very handsome. Flesh spicy, juicy, sweet, very good quality. Season very early. Tree vigorous, free from blight. Origin, Illinois.

**Manning's Elizabeth.** Late August. Bears in clusters. Fruit small to medium. Crimson and gold color; very beautiful. Flesh melting, rich, sugary, sprightly, perfumed flavor. Very productive. One of the best of early Pears.

**Osbond's Summer.** Ripens early in August. Fruit medium in size, often rather small. Greenish yellow, becoming yellow, with a reddish brown cheek, often faintly russeted. Flesh white, granular, with a sweet, mild and fine flavor; soon loses its flavor when mature. Tree moderately vigorous, and very productive. Origin, Wayne county, New York.

**Tyson.** Late August. Fruit above medium size. Bright yellow, with a reddish brown, softly shaded cheek, often some russet. Flesh of fine texture, buttery, very melting, juicy; flavor nearly sweet, aromatic, slightly perfumed, excellent. Ripens the last two weeks of summer. The tree does not soon come into bearing. Origin, Pennsylvania.

**Wilder.** One of the very earliest. Hardy. Produces a crop while young. Fruit large, pyriform, very highly colored, pale yellow, shaded dark russet red; small, numerous dots. Flesh pale yellow, fine-grained, juicy; flavor above medium to very good. Good shipper, and tree a very prolific bearer. Good for market. A report from the state of Vermont, where the mercury goes far below zero, is that the Wilder has come through their severe winters alive and bright to the tip.

**AUTUMN PEARS.**

**Beurre Bosc.** September and October. A large and beautiful deep yellow Pear, russeted in patches. Tree a moderate grower. Fruit body broad, neck long, and very narrow. Flesh juicy, buttery, rich, perceptibly perfumed, sweet, excellent. Bears well. We usually top-graft in order to obtain good standard trees. It does not succeed on the quince, or as a Dwarf tree.

**Bartlett - Seckel.** Season September. A cross between Bartlett and Seckel, and combines in itself the richness and high flavor peculiar to those well-known varieties. Fruit medium size. High color and handsome. Tree very vigorous, hardy and productive. Origin, Rochester, N. Y.

**Bessemlanka.** Season September and October. Fruit medium size; form obovate. Color yellow-crimson. Flesh buttery, melting, juicy, sweet, perfumed. Quality fair to good.

**Beurre d'Anjou.** Hardy. November to December. A large, handsome Pear. Surface greenish yellow, a dull red cheek to the sun, clouded with russet. Flesh yellowish white, fine-grained, buttery, melting, with a high, rich, vinous, excellent flavor. Tree a good bearer. Begins to ripen in the middle of autumn, and keeps until the winter holidays, when it commands a very high price in market. The hardiness, uniformity, reliability, excellence and long-keeping qualities render it one of the most valuable of all Pears.

**Duchess d'Angouleme.** October and November. Should only be sold as a dwarf. Fruit very large. A rough and uneven surface. Color a greenish yellow, with patches of russet and a dull red cheek. Flesh yellowish white, melting, buttery, juicy. A vigorous and strong grower, and a good bearer while quite young. Valuable for orchard. It attains its greatest perfection on the quince root, or as a dwarf tree.

**Eastern Belle.** Extra hardy. September. Probably a seedling of the Belle Lucrative. Fruit medium size. Yellow, shaded with light red, and some russet. Juicy, half melting, sweet and rich, with peculiar musky perfume. Excellent quality; very hardy and an abundant and regular bearer. Origin, Maine.



**Flemish Beauty.** Extra hardy. September and October. Fruit large; shape varies. Surface slightly rough, with some reddish brown russet on pale yellow ground. Flesh juicy, melting, often with a rich, sweet, and excellent flavor, but variable, and sometimes not high-flavored; needs house-ripening. An old and highly esteemed variety; a strong grower and great bearer. Hardy and desirable. This variety ranks for hardiness among Pears as the Duchess of Oldenburg does among apples — with the most hardy.

**Frederick Clapp, or Clapp's No. 22.** Middle to last of October. The fruit is medium to large size, inclined to roundness, but is somewhat variable in form. The skin is smooth, bright yellow, without blush or russet, but has many minute brown dots. Flesh is whitish yellow, very juicy. Quality very good to best. A remarkably good keeper. Tree vigorous and an abundant bearer. Origin, Dorchester, Mass., on the same farm as the Clapp's Favorite.

**Howell.** September and October. Fruit rather large, sometimes with a short, obscure neck. Color light waxen yellow, frequently with a handsome cheek, with minute dots. Fruit remarkably fair, sweet and melting, of excellent quality. Tree a strong and hardy grower and good bearer. Extensively planted all over the country. Origin, New Haven, Ct.

**Idaho.** October. Tree vigorous, having dark, luxuriant foliage. Very productive of fruit of largest size, weighing from 16 to 23 ounces. Fruit roundish. Flavor pleasant—equal to Bartlett. Flesh entirely free from gritty texture; core exceedingly small, and often without seeds. A good shipper, having carried 2,000 miles in good condition. Originated in Idaho, about the latitude of Quebec, and has survived winters when the thermometer ranged from 15° to 30° below zero.

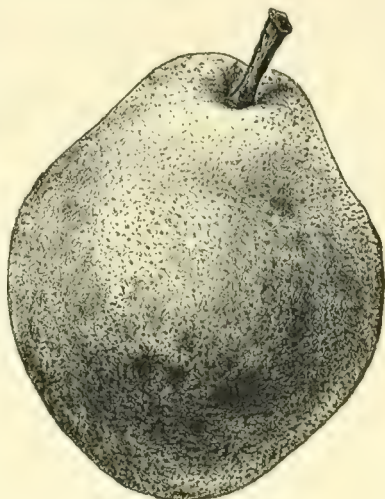
What others say about it:

Its quality is remarkable for such a large fruit.—P. J. BERCKMANS, *Pres. Amer. Pomological Society.*

The most noteworthy new fruit which has come to the notice of your committee. It is very large, handsome and of delicious flavor.—F. M. HEXAMER, *Chairman Committee Native Fruits, American Pomological Society.*



Howell.



Kieffer. (Half size.)

**Kieffer.** October and November. Raised from the seed of the Chinese Sand Pear, supposed to have been cross-fertilized with some other kind grown near it. Tree remarkably vigorous, having large, dark green, glossy leaves, and is a young and very heavy bearer. The tree is inclined to overbear, and proper thinning will improve the quality of the fruit. Fruit large to very large, roundish oval, narrowing at both ends. Skin rich golden yellow, with a fine red blush on the sunny side. Flesh whitish, a little coarse, juicy, very good. Ripens through October and November. To have it in perfection, it should be gathered when fully grown and ripened in the house. As a canning Pear, it retains its light color and possesses a rich, vinous flavor, being very refreshing, and, notwithstanding the process of canning, it remains rich, juicy and sprightly.

**Lucy Duke.** New. October. Fruit large, rather pyriform. Skin cinnamon-russet, with uneven surface. Flesh melting, juicy, sweet, excellent. Tree a vigorous grower. Origin, North Carolina.

**Louise Bonne de Jersey.** September and October. Large, tapering. Pale yellowish green in the shade, but overspread with brownish red in the sun. Very juicy and melting, with a rich and excellent flavor. A profitable market variety. Succeeds better on the quince (as a Dwarf tree) than on the Pear root. While hardly of the highest quality, it is very valuable for its large, fair fruit and great productiveness.

**New England Beauty (Baron de Mel-low).** November. Fruit medium size. Flesh white, tinged with orange; very juicy. Skin yellowish russet, with red cheek. Tree a vigorous, upright grower, and very productive. A valuable market sort.

**President.** November. A very large, handsome Pear. Color greenish yellow, with red in the sun. Flesh juicy, with an agreeable vinous flavor.



## AUTUMN PEARS, continued.

**Rutter.** October and November. One of our most valuable Pears. Fruit medium to large, nearly globular. Skin rough, greenish yellow, sprinkled with russet. Flesh white, moderately juicy, nearly melting, sweet, slightly vinous. Good quality. Tree an upright grower and a young and abundant bearer. American origin.

**Seckel.** September and October. Fruit small. Skin brownish green, becoming rich yellowish brown, with a deep brownish red cheek. Flesh very fine grained, sweet, very juicy, melting; one of the richest and highest flavored Pears known. Tree very hardy, and remarkably free from blight. A prolific bearer. Needs rich cultivation. Origin, near Philadelphia, Pa.

**Sheldon.** October and November. A Pear of the very first quality. Fruit large, roundish. Color greenish russet. Flesh very melting, juicy. Tree vigorous, erect and handsome and bears well when grown on pear root (as a Standard). Must only be sold as a Standard. A fine grower and good bearer, of fine quality, but does not succeed on the quince (as a Dwarf). Should be sold only as a Standard. See cut, page 9.

**Worden-Seckel.** October to December. A seedling of the Seckel, which for many years has been conceded by pomologists to be the standard of excellence. Color golden yellow, one side bright crimson. Flesh dull white, very juicy, buttery, melting, fine-grained, with a flavor and aroma fully equal to that of its distinguished parent, which it far surpasses in size, beauty and keeping qualities. Ripens early in October, and can be kept in good eating condition till December. Bears in clusters, and is one of the most



Worden-Seckel.

beautiful and attractive, and at the same time one of the best flavored Pears on the market. Prof. I. P. Roberts, of Cornell University, president of the New York society, says:

"The Worden-Seckel is certainly a very beautiful Pear. I consider this a very valuable variety and well worthy a place among the best in the country."

The Syracuse Journal says, in part:

"There is no more toothsome Pear than the Seckel, and that it has been improved upon is a distinct point gained. The Worden-Seckel is a delicacy. It is a little beauty, and as palatable as handsome. The Pears are perfect, high colored and luscious to the taste."

Originated by Mr. Sylvester Worden, of Minetto, Oswego county, N. Y., the originator of the noted Worden grape.

We highly recommend Worden-Seckel.

## WINTER PEARS.

**Beurre Clairgeau.** November and December. The flesh is inclined to be a trifle coarse and granular on strong, moist soil, but in a rich, warm spot is far superior. The tree is a strong, shapely grower, making a beautiful pyramid. It should be grown as a Standard, not as a Dwarf. Fruit very large. Skin yellow or yellowish brown, often with a crimson shade toward the sun, and brown dots. Flesh white, slightly granular, buttery, melting, often with a rich, very good flavor. An early and abundant bearer. From its handsome appearance and productiveness, it is a good market variety.

**Clapp's Beauty, or Clapp's No. 64.** December and January. Fruit medium to large, obovate-pyriform. Skin greenish yellow, with distinct red cheek. Flesh sweet, tender, fine-grained, good. Tree vigorous, hardy and productive. A new and valuable winter Pear.

**Duchesse de Bordeaux.** November to January. Fruit medium size. Color greenish yellow. Flesh juicy, sweet. Productive.

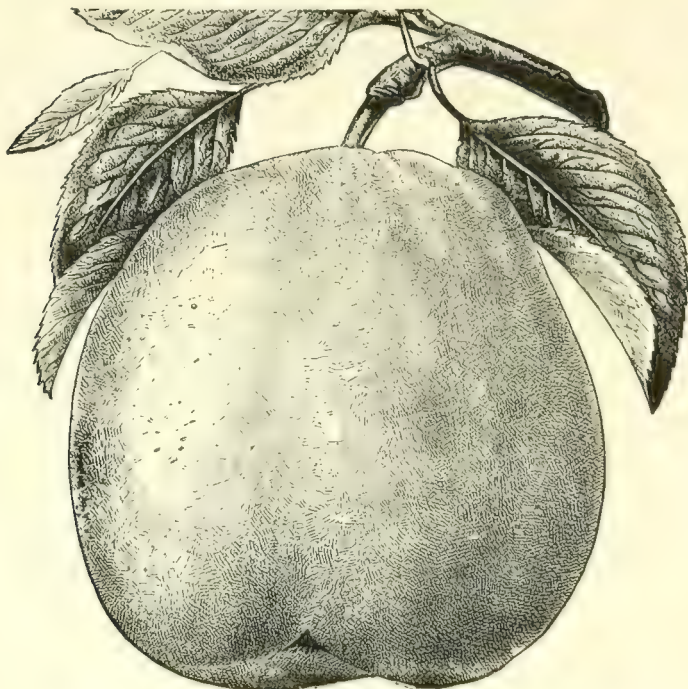
**Lawrence.** December. Fruit above medium size. Color lemon-yellow, with numerous small dots. Flesh whitish, buttery, rich, very good flavor. A young and good bearer, and unexcelled as a valuable early winter sort. Ripens easily, and is of uniform excellence.

**President Drouard.** March to May. A variety recently introduced from France, highly recommended for its rich flavor and great keeping qualities. Tree a vigorous grower. Fruit large and handsome; melting and juicy, with a delicious perfume.

**Vicar of Winkfield.** November and January. Fruit quite large, long, tapering. Skin pale yellow or pale yellowish green, with a dull reddish cheek. Flesh greenish or yellowish white, juicy. Its great and uniform productiveness, fine qualities for cooking and long period of continuance render this a valuable Pear.

**Vermont Beauty.** October. Fruit of medium size. Color yellow, with bright carmine cheek. Flesh rich, juicy and subacid. The tree bears young, is of vigorous growth, and is very productive. Originated in Grand Island county, one of the northernmost and coldest counties of the state of Vermont.





Idaho. (Described on page 11.)

## SELECT DWARF PEARS.

The Pear, when budded upon the root of the quince, assumes a dwarf habit, and seldom grows above 10 feet in height when properly trained.

In planting Dwarf Pear trees, the stock on which they are budded, and no more, should be under ground. They will then stand firm, and not lose their dwarf character by the rooting of the standard stock. The side branches should not be removed higher than one foot from the ground on dwarfs. Train in pyramidal form.

See directions under Standard Pears for gathering and ripening Dwarf Pears.

The selection of varieties in the Dwarf sorts is of importance, and it is a well established fact that certain kinds do not thrive well on the quince root. Our list includes the varieties valuable as Dwarf trees.

### SUMMER VARIETIES.

<b>Bartlett,</b>	<b>Flemish Beauty,</b>	<b>Osband's Summer,</b>	<b>Tyson.</b>
<b>Clapp's Favorite,</b>	<b>Manning's Elizabeth,</b>	<b>Rutter,</b>	

### AUTUMN VARIETIES.

<b>Beurre d'Anjou,</b>	<b>Howell,</b>	<b>Kieffer,</b>	<b>Seckel,</b>
<b>Duchesse d'Angouleme,</b>	<b>Idaho,</b>	<b>Louise Bonne de Jersey,</b>	<b>Vermont Beauty.</b>

### WINTER VARIETIES.

<b>Lawrence,</b>	<b>President Drouard,</b>	<b>Worden-Seckel,</b>
<b>Clapp's Beauty,</b>	<b>Vicar of Winkfield.</b>	

The description of the Dwarf Pear is identical with that of the Standard Pear.





Schmidt's Bigarreau Cherry.

## SELECT CHERRIES.

Cherries thrive best on sandy or gravelly soil ; a wet situation is not advisable.

### HEARTS AND BIGARREAUS.

These are strong, vigorous growers, making a large, open, spreading head, and are desirable for the purpose of heavy shade ; they produce sweet fruit.

**Black Eagle. Sweet. Dark. Early in July.** Fruit rather large ; roundish, heart shaped. Skin deep purple, nearly black. Flesh deep purplish crimson, tender, rich and highly flavored. A moderate bearer.

**Black Tartarian. Sweet. Black. Early to middle of June.** Fruit quite large (often an inch in diameter), heart shaped, with an uneven surface. Skin bright black. Flesh dark, half tender, with an excellent liver-like consistency, rich, very little acid, with a fine, mild flavor. The vigorous growth and great productiveness of the tree, and the large size and mild, sweet flavor of the fruit, render this variety a general favorite.

**Dikeman. Sweet. Dark. Ripens in Michigan Early in August.** We get the following description from a well known horticultural authority :

The latest dark colored Cherry of medium size that I have ever seen. Origin, Michigan. Not inclined to decay, and keeps in perfect condition long after being picked. Its firm flesh and fine keeping qualities especially commend it as an orchard fruit. As seen growing on the original tree in Michigan, it is very productive. As grown in the state of Michigan, I have found it ripening in early August, and hanging in perfect condition on the tree until late in the month.

**Governor Wood. Sweet. Light. Middle of June.** Fruit large, roundish, heart shaped, light yellow, shaded and marbled with light red. Flesh rather tender, nearly sweet, rich,

excellent. Tree vigorous, forming a round head. As the trees grow older they often over-bear, and yield a smaller and less excellent fruit ; hence, require thinning. Origin, Cleveland, Ohio.

**Napoleon Bigarreau. Sweet. Light. Early in July.** Fruit of the largest size, regularly heart-shaped. Skin pale yellow and amber, spotted and shaded with deep red. Flesh very firm, with a fine flavor. Very productive and good for market.



Governor Wood.



## SELECT CHERRIES, continued.

**Rockport.** Sweet. Light. Late June and early July. Fruit quite large, round, heart-shaped. Color, when fully ripe, a beautiful clear red, shaded with pale amber. Flesh firm, juicy, sweet, rich, with an excellent flavor. Tree an upright grower. Origin, Cleveland, Ohio.

**Schmidt's Bigarreau.** Sweet. Black. Middle of July. A most promising Cherry. Fruit of immense size. Color a rich, deep black; very desirable for the table. Flesh dark, tender, very juicy, with a fine flavor. Tree bears abundantly.

**Stuart Bigarreau.** Sweet. Light red. Late July. A new seedling Cherry, two or three weeks later than other varieties. Color a showy, light red. Fruit good size. Tree a vigorous grower and hardy, and extremely productive, making it very desirable for family use or market purposes. Our attention was first called to this Cherry by noticing baskets of it in a canning establishment, and while our varieties were all gone, this was still perfect fruit. The original tree has fruited each season for the last twenty years.

**Windsor.** Sweet. Dark. Late July. Fruit large. Color nearly black, or liver-colored. Flesh remarkably solid, sweet, and of a fine quality. A very valuable late winter variety for market and for family use. Tree hardy and very productive. A seedling originated in Windsor, Canada.

**Vladimir.** Sweet. Black. A native of north central Russia. Color black. Flesh sweet, juicy. Fruit medium to large. Quality excellent. The tree is perfectly hardy, and free from black-knot. The Vladimir is a wonderful and prolific bearer, grown by the train-load in northern Russia, thereby attesting superiority as a cold climate Cherry of great commercial value. Excellent shipper.

**Yellow Spanish.** Sweet. Light. End of June. Fruit large, often an inch in diameter. Pale waxen yellow, with a handsome, light red cheek to the sun. Flesh firm, juicy, rich and delicious. Tree vigorous and an excellent bearer. Succeeds over a large extent of country.

## DUKES AND MORELLOS.

Trees do not attain as large a size as the Hearts and Bigareaus; the growth is slower. Trees are hardy, and not liable to injury by the bursting of the bark. Fruit is sour.

**Bessarabian.** Sour. Dark red. The new, hardy, Russian Cherry. The following description is given by Professor Budd, of the Iowa Experiment Station:

It will endure more abuse of tree than most of our forest trees. Our original tree has been cut for buds and cions for five years, taking off all the new growth; yet the tree is sound today. Fruit large. Dark red. Firm fleshed, and when ripe, very mildly subacid. It promises to make a long-lived tree of considerable size, and to prove a regular bearer of choice fruit.

**Early Richmond.** Sour. Red. June. Fruit medium size, round, growing in pairs. Flesh very juicy and acid. Tree slender; not a rapid grower, but a great bearer. This is one of the most popular of acid Cherries for hardness and for cooking purposes. Ripens early, and hangs long on the tree.

**English Morello.** Sour. Dark red. Late July and early August. Fruit large. Color dark red, nearly black. Tender, juicy, subacid. Tree dwarf and slender.

**Louis Philippe.** Sour. Red. Middle to last of July. Fruit large. Color rich dark red. Flesh red, tender, juicy, with a mild subacid flavor. Extra hardy; a vigorous grower and very productive. Origin, French.

**May Duke.** Sour. Dark red. July. Fruit large, heart shaped. Color red at first, becoming when mature nearly black. Flesh reddish, becoming dark purple, very juicy and melting, rich, acid, excellent. Usually early, but varies in its season of ripening, even on the same tree. Very hardy.



Stuart Bigarreau.

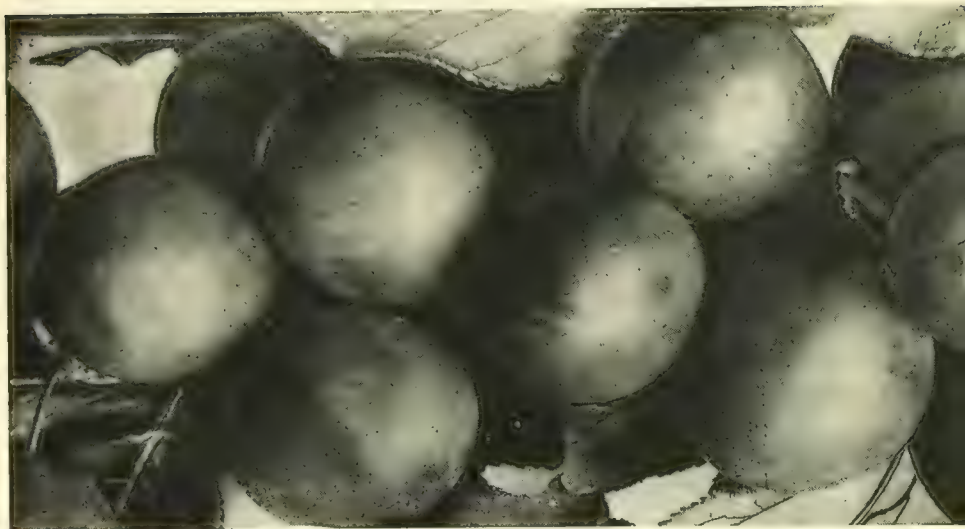
**Montmorency Large.** Sour. Red. Late June. One of the very finest acid Cherries. Tree very hardy and an immense bearer; commences to fruit while young, and is loaded annually thereafter with fine crops. Fruit of good size. Fine flavor. Color bright, clear red. Valuable everywhere, especially for northern latitudes. A good market variety. The Connecticut Valley Orchard Co., of New Britain, report through their Mr. J. B. Smith, President, that:

We have 50 trees (Large Montmorency Cherry) that came into bearing last season, and greatly like the variety. Is large, of high color, late, sour, and very productive. A fine tree, bearing its fruit not in clusters, but singly, and they grow so thick that they can be picked cheaper than any other Cherry that we have.

**Olivet.** Sour. Red. Continues fruiting through most of June and July without losing quality. A shining deep red. Fruit large. Flesh red, rose-colored juice, rich, vinous, with mild, subacid flavor. French origin.

**Ostheim (Russian Cherry).** Sour. Dark red. Early to middle of July. Imported from St. Petersburg, Russia. In the severest winters of Minnesota found to be hardy. Fruit large, roundish. Flesh liver color, tender, juicy, subacid, and when fully ripe nearly sweet. Tree of slender growth.





Monarch. (See page 19.)

## SELECT PLUMS.

A List of Thoroughly Tested American, European and Japanese Varieties.

**Abundance.** Japanese. Orange-yellow and red. Early September or late August. Imported by Luther Burbank in 1884. Fruit medium size (or large when thinned), varying in shape from nearly spherical to distinct sharp-pointed, usually with a pointed apex. Ground color rich yellow, overlaid on sunny side with dots and splashes of red, or in some specimens nearly uniformly bluish-

red on the exposed side. Flesh deep yellow, juicy and sweet, of good quality when ripe. Cling. A strong grower and upright tree, with rather narrow leaves, and a decided tendency to overbear. One of the sweetest and best. Fruit very thin-skinned, with tender, melting flesh. This is one of the best known of all the Japanese Plums in the North, and its popularity is deserved.

**Apple.** New. Japanese. Deep reddish purple. September and October. American origin. Procured from Luther Burbank, the "Wizard of Horticulture," who thus describes it:

Among the welcome surprises found three years ago among a lot of some twenty-five thousand Plum seedlings was this one, bearing a cruel load of enormous Plums when only two years old, while nearly all the others refused to bear so early, and none of them have produced a fruit in all respects equal to this one. It was at once named Apple, from the very close resemblance in form, color, general appearance, and rare keeping qualities. The tree is a fine, strong grower. The fruit, which averages about  $2\frac{1}{2}$  inches in diameter, is striped and mottled like Imperial Gage until nearly ripe, when it turns to a deep, reddish purple. The superlatively rich, high-flavored, sweet or subacid flesh is rather firm, pale red, with marblings and streaks of pink; nearly freestone. Its parentage is not known. Ripens here (California) soon after Burbank, and sometimes keeps a month or more in good condition.

**America.** New. Japanese. Bright, glossy red. September. American origin. Procured from Luther Burbank, who describes it as follows:

This great Plum originated from seed of the well-known Robinson from a cross with the Japanese Plum, Botan, and is from the same combina-



Abundance.

tion which produced Gold and Juicy, both of which have proved generally hardy throughout the United States, and no doubt America will prove quite as hardy. In growth and general appearance the tree is like the American Plums, having rather drooping, slender branches and less robust growth than the Japanese species, and yet is a good grower and exceedingly prolific. The fruit of America is larger than the average Japan Plums, and from four to sixteen times as large as the popular American varieties. The glossy, coral-red fruit is not surpassed in beauty by any Plum. The light yellow flesh is moderately firm and very delicious; so good that those who do not like most Plums call for more, and keep right on eating Americas. It ripens here (California) July 20, two or three weeks before Robinson or Burbank, and is a splendid keeper. Will probably prove hardy throughout the United States.

**Beauty of Naples. Light. Season September.** Tree a good bearer. Color yellowish green, with reddish cheek on sun-exposed side. Flesh yellow-amber, tender, juicy, sweet, of excellent quality. Semi-cling. Fruit of medium to good size.

**Bradshaw. Purple. Late August.** Fruit very large, sometimes with a very slight neck. Color dark purple, with a light blue bloom. Flesh a little coarse, becoming light brownish purple, at first adhering, but becoming nearly free from the stone when fully ripe; juicy, good, slightly acid. Tree vigorous and productive.

**Burbank. Japanese. Red. September and October.** Imported by Luther Burbank in 1885. Of the older Japanese sorts, this is one of the best. Fruit when fully grown is 6 to 7 inches in circumference, nearly globular, often a little lopsided, point generally blunt. Color cherry-red, showing many yellow dots; often more or less marbled, in the sun becoming rather dense red. Flesh firm and meaty, deep yellow, rich and sugary; its firmness makes it a good keeper and a good shipper, and it is excellent for canning. For market or family use it is very fine. Tree of great vigor, with a broad, sprawling habit, needing close pruning; is exceedingly productive, and as it usually sets too much fruit, it should be thinned for best results.

**Chabot. Japanese. Yellow and Red. September.** Fruit of medium size, oblong conical. Color bright, cherry red nearly all over, with yellow dots, excepting the shady side, which remains yellow. Flesh orange-

yellow, firm, juicy, sweet and of excellent quality. A cling. Valuable for drying and canning. Its late season of ripening and its beauty give it high market value. Tree strong, upright, somewhat spreading grower and very productive. This variety is called yellow Japan; also Chase by some.

**Chalco. New. Japanese. Deep reddish purple. September.** Procured from Luther Burbank, who describes it thus:

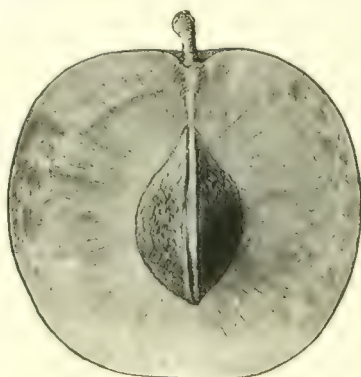
After twelve years of experiment in crossing the unique, handsome, fragrant Chinese Plum, *Prunus Simoni*, often called the "Apricot Plum," with the Japanese and American Plums, we now offer the first fruit of this long and very expensive work. The fruit, which ripens just before the Burbank, is large, flat like a tomato, deep reddish purple, with very sweet, rather firm, exceedingly fragrant, yellow flesh and small seed. Like the Apricot Plum, the fruit is almost as stemless as a peach, and completely surrounds the older branches as thick as it can stick, like kernels on a huge ear of corn. **A superior shipping Plum, as it ripens well when picked green, and keeps nearly or quite a month.** A tremendous grower, and unsurpassed in productiveness. Chalco is a forerunner of a new hardy race of Plums. American origin.

**Damson.** See Shropshire Damson.

**De Soto. Hardy. Red. September.** Tree a good grower and very hardy. Fruit large to very large, round-oblong. Skin thick. Color red, with slight purplish bloom. Flesh orange color, firm, juicy. Quality good. Pit clings. Ripens late. An American Plum. Productiveness is increased by planting a number of them near together, or grouping them with other kinds in a cluster. Origin, Wisconsin.

**Empire. Dark purple. Early September.** At one time called the Empire State Plum. Fruit large, oval. Color dark purple. Quality good. Tree hardy, productive and vigorous, fruit ripening about September 5 to 10. This is a good orchard Plum. Originated in Cortlandt county, New York.

**Fellemburg. French or Italian Prune. Dark, purple. Late August.** An excellent late variety. Fruit medium size, oval, tapering at ends. Color dark purple, with dark blue bloom. Flesh greenish yellow, juicy, sweet, of good quality. Freestone. Valuable for drying. Tree a free grower, and very productive



Empire.



## SELECT PLUMS, continued.

**Forest Garden. Hardy. Dark. September first.** Well adapted for the north, being very hardy. Fruit is large for a native Plum, nearly round. Color orange-yellow, overlaid and dotted with red, almost a purplish red, when fully ripe. Flesh orange color, moderately firm, fibrous, juicy, good. Pit clings. Productiveness is increased by planting a number of them near together, or grouping them with other kinds in a cluster. Origin, Illinois.

**German Prune. Purple. September.** Fruit large, long-oval, curved or swollen on one side, with a long, tapering neck. Skin purple, with a thick blue bloom. Flesh green, firm, sweet, pleasant, not rich. Pit free. Valuable for drying, an industry that is increasing in importance. Much used for preserving also, so that the market demand is good, making a good price for the fruit.

**Giant Prune. Dark purple. September, following German Prune.** Is one of the new productions of Luther Burbank, of Santa Rosa, California, and is considered as the very best Prune for general cultivation ever produced. We have fruited it here, and find it one of the finest Prunes in our orchards. It is a good grower, and a strong, regular fruiter. The fruit is very large, oval, not pointed. Color dark purple. Flesh dark yellow, sweet and good. Freestone. Highly recommended as a market fruit. Dries well. Ripe a few days later than German Prune. Origin, California.



German Prune.

**Grand Duke. Purple. Late September.** Bulletin No. 131, sent out by the Cornell University Experiment Station, Ithaca, New York, says:

Originated and sent out in England by the same party that sent out the Archduke and Monarch. Mr. Thomas Rivers has furnished to the world these three of the largest and most beautiful late Plums of recent introduction. The Grand Duke is a very large purple Plum, so attractive in its appearance as to be a fine market sort, and apparently well adapted for general cultivation over a wide area.

The tree is not a strong grower, and does not come into bearing early, a fact that is generally to be regretted.

**Gull. Dark. First to middle of September.** Fruit very large, deep bluish purple, covered with thick bloom. Flesh yellowish green, sweet and pleasant. Tree a great and very young bearer, hardy, and a strong, rapid grower; a new variety, and generally regarded as of great value for market by the Plum growers along the Hudson river. Origin, Lansingburg, N.Y.

**Hudson River Purple Egg. Purple. Middle of September.** Highly esteemed by growers along the Hudson river. Described as one of the richest and finest flavored Plums we have. Stone free. Fruit good size, resembles the German Prune, but a little larger, with a nice bloom. Good bearer. Tree bears young.

**Imperial Gage. Green and yellow. Last of August.** One of the most productive. Fruit rather large, oval. Surface green, slightly tinged yellow, with marbled green stripes. Flesh greenish, juicy, melting, rich, sometimes adhering, but usually free from the stone. A strong, vigorous grower, very productive.

**Italian Prune.** See Fellenburg.

**Lombard. Violet-red. Last half August.** Fruit medium size, round, oval, slightly flattened at ends. Skin violet-red. Flesh deep yellow, juicy and pleasant; good quality. Tree a great bearer and hardy. Valuable most anywhere. Origin, Albany, New York.

**McLaughlin. Light red and yellow. Last of August.** Fruit large. Skin thin, tender, russet - yellow, sprinkled with thin red. Flesh juicy, sugary and luscious, with an exceedingly fine flavor. Excellent to eat out-of-hand. Valuable for family use. Origin, Bangor, Me.

**Moore's Arctic.**

**Monarch.** Dark. September. Fruit dark purplish blue, covered with a thin bloom, nearly spherical; large, being about 6 inches in circumference. Flesh pale, greenish yellow, partly free from stone, juicy, and with a pleasant flavor. Trees come into bearing very young, and bears abundantly. See cut on page 16.

**Monroe.** Light. Early September. Fruit medium size, roundish. Color greenish yellow. Flesh firm, rich and sweet. Tree vigorous and healthy. Bears abundantly. Origin, Monroe county, N. Y.

**Moore's Arctic.** Hardy. Dark. September and October. Fruit medium size or below. Skin purplish black, with a thin blue bloom. Flesh greenish yellow, juicy, sweet and of pleasant flavor. Tree healthy, vigorous, an abundant and early bearer. Origin, Maine. Charles Downing speaks of it as follows:

A new hardy Plum, which originated on the highlands of Aroostook county, Maine, where, unprotected and exposed to Arctic cold, it has for many years borne enormous crops, and is claimed to be the hardiest Plum known.

**Niagara.** Purple. September. Fruit of extra large size and first-rate flavor. Color dark purple. Good bearer; not liable to rot. Freestone. E. Moody & Son, of Lockport, N. Y., say it is one of the most profitable varieties to grow, and ranks very high.

**Prince Englebert.** Dark purple. End of August. Fruit very large and long. Color deep bluish purple with a dense bloom. Flesh juicy, melting. Quality rich and excellent. Freestone. Tree very vigorous. Desirable and decidedly profitable as a market Plum.

**Prince's Yellow Cage.** Yellow. Early August. Fruit medium size, oval, slightly

broadest at base. Surface golden yellow, slightly clouded, bloom white, copious. Flesh deep yellow, rich, sugary, melting, sometimes rather dry. Origin, Flushing, L. I.

**Pearl Prune.** Color light. Procured from Luther Burbank, who describes it in the following language:

A seedling of the well-known French Prune, which it surpasses considerably in size of fruit, which is handsome, flattened, ovoid in form; white, semi-transparent, with a heavy white bloom. In honeyed sweetness, combined with a peculiarly attractive fragrance and flavor, it surely excels all other Prunes or Plums. The fruit, when cured, produces one of the most exquisitely delicious Prunes in existence, but requires care in handling, and will not cure well in the open air. Specially recommended for market and home use.

**Purple Egg.** See Hudson River

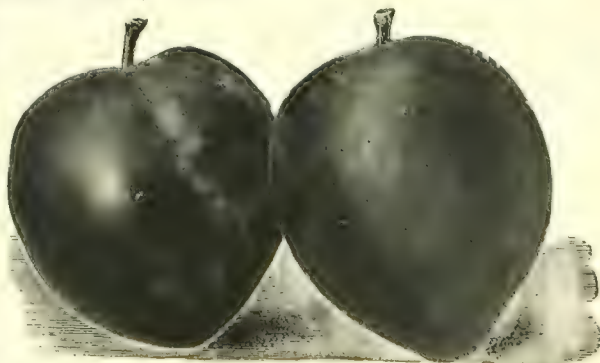
Purple Egg.

**Prunes.** See Fellemburg Prune, German Prune, Giant Prune, Italian Prune, Pearl Prune, and Tennant Prune.

**Quackenboss.** Dark purple. Late September. A popular Hudson river variety. Fruit large, oblong, oval. Color deep purple. Flesh greenish yellow, juicy and sweet, slightly coarse in texture, with a sprightly flavor. Partly freestone. Origin, Albany, N. Y.

**Reine Claude de Bavay.** Light. September. Fruit large, round-oval shape. Color greenish yellow, spotted with red, with small violet colored veins. Flesh juicy, melting and sugary, with a rich, excellent flavor. Tree vigorous and remarkably productive of fine fruit.

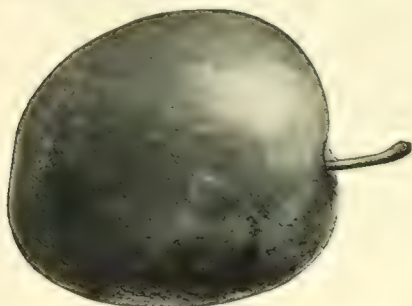
**Red June.** Japanese. Deep red. Season very early. Fruit medium to large size, long conical. Color deep vermilion red, with handsome bloom; very showy. Flesh light lemon yellow, slightly subacid, of good and pleasant quality. Small pit and half cling. Tree vigorous, hardy, upright, spreading and handsome.

**Red June.**



## SELECT PLUMS, continued.

**Satsuma. Japanese. Red. Midseason.** Fruit medium to large, broadly conical, with a blunt point; suture very deep. Color very dark red, with greenish dots and blue bloom. Flesh blood-red, rather coarse and acid, fair to good in quality; clings to the pit. Midseason. Tree very productive.



Shipper's Pride.

**Shipper's Pride. Red. First to Middle of September.** An unusually thrifty grower. Very productive. Fruit of large size and nearly round. Color light red, white bloom. Flesh red, firm, sweet, juicy. Quality fine, juicy, and sweet. Excellent for canning. An unusually good shipper, being a long keeper. A splendid market Plum. Originated near Lake Ontario, New York.

**Smith's Orleans. Dark. Last of August.** Fruit very large, oval, slightly wider at stem. Skin reddish purple, becoming very dark; bloom deep blue. Flesh deep yellow, slightly firm, juicy, rich. Productive in nearly all soils. Origin, Long Island, N. Y.

**Stanton. Purple. Early October.** Tree a vigorous grower, upright in habit. Fruit roundish oval, medium to large size. Color deep bluish purple, covered with rich bloom. Flesh yellow, firm, rich and sugary, and parts freely from the stone. A chance seedling, originated in Albany county, N. Y.

**Shropshire Damson. Purple. October.** Fruit is small size, roundish, but larger than the old fashioned Damson. Color purple. Flesh amber colored, juicy, quality good. Tree vigorous, hardy, productive. Of great merit for preserving. English origin.

**Tennant Prune. Dark purple. Middle to last of August.** Fruit large. Color dark purple, overspread with heavy blue bloom. Flesh sugary, juicy and delicious, and perfectly free from the stone. The originator makes the statement that the original tree has been known to bear 1,000 pounds of Prunes in one season. The tree is very hardy and vigorous. Ripens its fruit about one month earlier than other varieties of Prunes. Possesses great bearing qualities, making it valuable for market purposes. Originated in the state of Washington.

**True Sweet Botan. See Abundance.**

**Washington. Yellow. Late August.** Fruit large, roundish oval. Color yellow, with slight crimson bloom. Flesh sweet, delicious.

**Weaver. Hardy. Dark red. Midseason.** Doctor Ennis, of Clinton, Iowa, kindly furnishes the following description:

It is one of our ordinary wild Plums, of fine size, good flavored and wonderfully productive. The tree is very hardy, never injuring even in our severest winters.

Size medium. oblong flattened. Color dark red, with purple bloom. Pit free. A good canning Plum. Where good cultivated Plums can be raised, this Plum may not have much value, but in the west and extreme north it is valuable. Productiveness is increased by planting a number of them near together or grouping them with other kinds in a cluster. Origin, Iowa

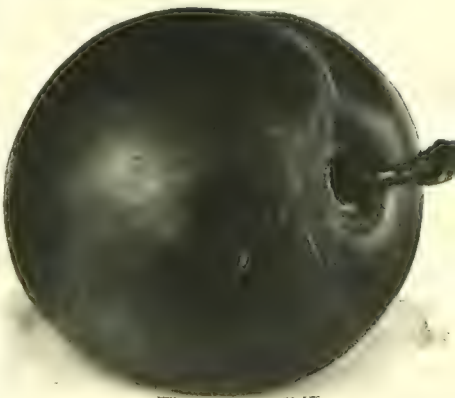
**Wickson. Japanese. Deep red. Late September.** Fruit is very large size, often 8 to 9 inches around. Color deep maroon-red, covered with a light bloom. Flesh firm, and a long keeper; has an aromatic, almond-like flavor; meat is a deep, dull yellow; pit small. Fruit in shape is oblong, pointed. The Cornell University Experiment Station reports that the tree has been perfectly hardy with them. Tree is a good and upright, compact grower, something of a vase shape; fruit evenly distributed over the tree, and is very productive. An enormous bearer.

**Wild Goose. Light red. Middle August.** Fruit medium size, roundish. Skin thin, shiny, bright light red. Flesh yellow, pulpy, very sweet, juicy when fully ripe. Pit clings. It is advised to pick the fruits 3 or 4 days before ripening, and ripen in the house; if left to hang on the tree too long they become too soft for shipping. The tree is a poor self-fertilizer, and should have other Plum trees, with an abundance of pollen, planted near. Origin, Tennessee.

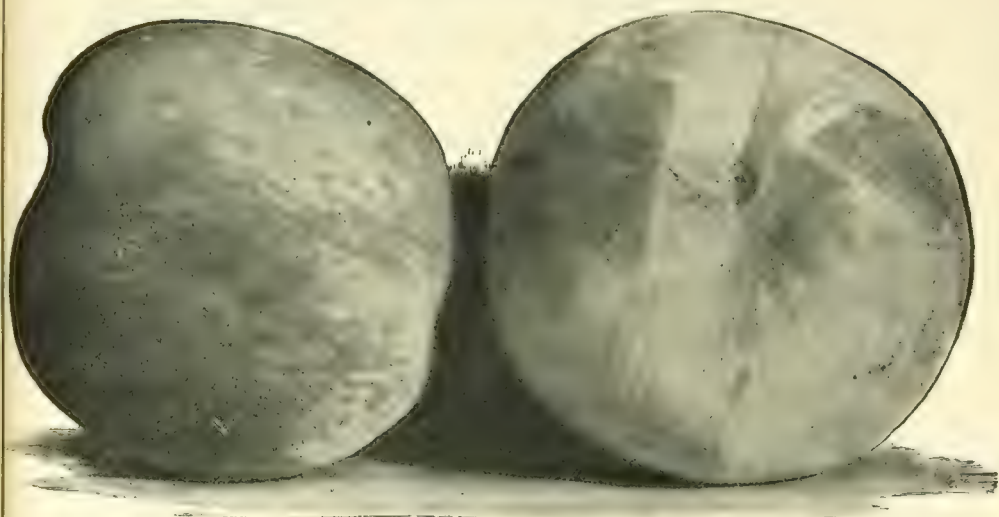
**Wolf. Yellow. Season early.** Fruit is medium size, round. Skin is thick yellow, mottled red. Flesh yellow, firm, fibrous, good. Freestone. Tree is a strong grower and very prolific. Valuable for market and for home use. Origin, Iowa.

**Yellow Egg. Yellow. Late August.** Fruit very large and beautiful, oval, narrow at ends. Skin light yellow, with thin white bloom. Flesh firm, coarse, acid, becoming sweet by ripening. Excellent for cooking. Vigorous and productive

**Yellow Japan. See Chabot.**



Wickson.



Triumph. (See page 24.)

## SELECT PEACHES.

In planting Peaches, cut back trees severely. This is of the highest importance. The trunk should be reduced about one-third, and the side branches cut back to one bud. This lessens the demand upon the roots, and enables the remaining buds to push more vigorously.

Peach fruit is produced on wood of the last season's growth, hence the necessity for keeping up a good supply of vigorous annual shoots all over the tree. Keep the ground clean and mellow around the trees. Keep the heads low—the trunks ought not to exceed 3 feet in height. Every spring prune and shorten the shoots of the previous year's growth; thus keep the head round, full, and well furnished with bearing wood. Cut weak shoots back about one-half, strong ones one-third; but see that you have a sufficient supply of fruit-buds.

**Alexander.** Deep red on greenish white. Flesh white. Season late July. Fruit about medium size. Flesh whitish, sometimes stained next the skin; half melting, juicy and sweet. Stone small, and adheres but slightly. Tree healthy and vigorous, remarkably prolific, and bears young. Good market Peach. Introduced from Illinois.

**Amsden.** Red. Flesh light color. Season late July. Fruit medium size, roundish. Skin shaded and mottled red. Flesh light colored, melting, juicy, very good quality, adhering to the stone. Tree vigorous and productive.

**Beer's Smock.** Orange-red on yellow. Flesh yellow. Season first part of October. Fruit large, oval, well calculated for distant market shipment. Flesh bright yellow, red at stone, moderately juicy, rich. Freestone. Valuable for drying purposes and for canning. Tree vigorous. One of the most valuable late Peaches. A seedling of the old Smock Free. Origin, New Jersey.

**Crosby.** Yellow, splashed red. Flesh yellow. Season middle of September. It unquestionably is one of the hardiest Peaches of good quality. It has borne immense crops where other kinds in the same orchard were killed. The fruit is full medium size, roundish in form, slightly flattened; with a distinct seam on the blossom end. Color orange-yellow, splashed and striped with carmine.

Flesh is yellow, with red at the pit, firm, moderately juicy, and of good quality. Stone very small. Tree an enormous bearer. Has been tested for ten years in the bleakest parts of New England, and has proved itself to be first-class in every way. Originated in Billerica, Mass.

**Champion.** White, red cheek. Flesh white. Season August. Fruit grows very large, many specimens measuring 10 inches in circumference. Color a creamy white, with red cheek. Flesh white; flavor delicious, sweet, rich and juicy. Tree very hardy and productive. Its record covers withstanding a temperature of 18 degrees below zero, and of bearing a heavy crop in 1890, when there was an almost total failure of the Peach crop on account of the extreme cold. A good shipper. Comes from Illinois.

**Crawford Early.** Red. Flesh yellow. Season early September. Fruit very large, handsome. Color a beautiful, showy yellow and red cheek. Flesh deep yellow, very juicy and rich, and of splendid flavor. A magnificent large yellow Peach of splendid quality. A variety most desirable and well deserving of its great popularity, for its size of fruit, beauty of color, and productiveness make it one of the most popular orchard and "home-use" varieties. A perfect freestone. Tree is very productive. Origin, New Jersey.



## SELECT PEACHES, continued.

**Crawford Late.** Red. Flesh yellow. Season late September. Fruit very large, roundish; surface yellow, with a broad dark red cheek. Flesh deep yellow, very juicy, rich, of good flavor. Tree productive. What is said of the Early Crawford can be repeated of this variety. In color, size, quality, and for general allround good points, our two Crawford are fine fellows, and will please. For home use or market, they can be depended upon. Origin, New Jersey.



Fitzgerald.

**Early Rivers.** Creamy white, pink shaded. Flesh light. Season late July. Fruit large size, roundish. Color creamy white, shaded with pink. Flesh light, soft, melting, rich. English origin.

**Early York.** Red. Flesh light. Season middle to last of August. Fruit large, roundish. Skin nearly white in the shade, with red dots and with a deep red cheek to the sun. Flesh nearly white, fine-grained, very juicy, excellent flavor. Called "Honest John" by some.

**Elberta.** Red. Flesh yellow. Season latter part of September and early October. Fruit above average in size, round. Skin golden yellow, covered with a bright crimson blush; very handsome. Flesh pale yellow, tender, juicy, good quality. Entirely freestone. Elberta fruit can be gathered before it is ripe, and it will ripen up without rotting. A remarkably profitable market sort. Is being heavily planted for orchards. Bears transportation well. Tree vigorous, hardy, and comes into fruiting young. Origin, Georgia.

**Early Canada.** White and red. Flesh white. Season July. Fruit of good size, firm quality, and handsome appearance. Its earliness, and the fact that the fruit cleaves from the stone, almost as thoroughly as later varieties, makes an unusual demand for this Peach. Origin, Jordan, Canada.

**Engle's Mammoth.** Yellow, red cheek. Flesh yellow. Late Peach. In looks and sea-

son of ripening the fruit is similar to the Late Crawford. High color. The tree will stand a low temperature. Found to be one of the heaviest croppers by the Michigan Peach growers. Fruit is free from blotches. In every way a desirable variety.

**Fitzgerald.** Yellow and red. Flesh yellow. Season medium. Origin, Oakville, Ontario, Canada, outside the "Canadian Peach Belt," in a cold section, where Peach-growing as a business was never made profitable with other varieties, but where Fitzgerald proves suitably hardy. Fitzgerald commences to bear fruit while still young. The fruit is of very large size, larger than Early Crawford; classed among the best for good quality of fruit. In bearing qualities, Fitzgerald ranks with the heaviest croppers. One strong point is the smallness of the pit.

Messrs. S. & W. Collinson, Toronto, Canada, who are among the largest and most experienced growers, say of Fitzgerald:

"November 20. I consider the Fitzgerald crops at least 25 per cent heavier than these other sorts. Owing to the immense size of the Peach, it requires but half as many to fill the basket as it does of the other varieties; therefore, it is most profitable in that respect. As a money maker, I don't believe that it has an equal, all things considered. In the first place, it has brought me prices three times as high as the ordinary

sorts. Then the rich flavor of the Peach and its handsome coloring make it a sure seller.

"Even this year, when there was such a glut on the market, when common kinds were bringing 20 cents a basket, I was able to get 50 and 60 cents for my Fitzgeralds.

"During the Peach season I shipped, in two weeks' time, about ten carloads of peaches, from which you know I am no novice in the matter, and my experience in this line of fruit leads me to say that your Fitzgerald stands at the very head of the list as a profitable variety."

**Foster.** Yellow, red-cheeked. Flesh yellow. Season early to middle September. Resembles Early Crawford in general character and appearance, and is said to be a seedling of that popular variety. Ripens with Early Crawford. Originated in Massachusetts.

**Greensboro.** Red. Flesh white. Season extremely early. Fruit medium to large size. Color red, shaded with yellow. Flesh white, juicy, good. Mr. J. Van Lindley, of North Carolina, states:

"While I was shipping Alexander, not one-third of which were ripe, I visited the original Greensboro tree; the tree was loaded with fruit colored beautifully, uniformly large, averaging more than double the size of Alexander. I was told that they had been ripening more than a week, and about every Peach on the tree was then ripe enough to ship, most of them getting soft."

**Garfield.** Red. Flesh yellow. Season late September. Fruit fully medium size. Color deep orange-red, becoming red on the exposed side. Flesh yellow, very rich and juicy. Origin, Cayuga county, N. Y.

**Globe.** Yellow, red cheek. Flesh yellow. Season latter part of September. Fruit globular and of very large size, frequently measuring 12 to 14 inches in circumference. Flesh yellow, firm, juicy, luscious, and a freestone. Tree a rapid grower and an enormous bearer. Good shipper. Originated in Pennsylvania.

**Hill's Chill.** Yellow, shaded red. Flesh yellow. Season late September. Fruit full medium size. Flesh yellow, rather dry. Tree hardy, productive, making it a valuable market sort. Origin, Monroe county, N. Y.

**Hynes' Surprise.** Yellow and red. Flesh whitish. Season late July. A perfect freestone. Flesh of high flavor, melting, juicy. Fruit medium size, and valuable on account of its showy appearance, it being a perfect freestone and its ripening so early. Color dark red on the sunny side, shading to yellow.

**Honest John.** See Early York.

**Heath Cling.** Yellowish white, red cheek. Flesh pale. Season very late. Fruit very large when season admits of it fully maturing; in the north it matures fully in the warmest seasons only. Surface quite downy, pale yellowish white, sometimes faintly tinted with red next the sun. Flesh pale, exceedingly juicy, melting, sweet, rich flavor. A clingstone. Season very late, about mid-autumn, and the fruit may be kept nearly until winter. Tree quite hardy and vigorous. Origin, Maryland. This is the only real clingstone that we grow.

**Longhurst.** Yellow, red cheek. Flesh yellow. Season late September. The fruit resembles Early Crawford, being of excellent flavor, size and quality. This is a new Peach, originated in Ontario, Canada, and, as might be supposed from its birthplace, is hardy, bearing annually large crops. The season of ripening and the hardiness of the tree make it valuable in colder climates.

**Michigan Early.** Yellow and bright red. Flesh white. Ripens middle of August. Fruit large. A hardy, strong-growing tree, well adapted to light and sandy soil.

**Michigan Chill.** Yellow and dark red. Flesh yellow. Season late September. Fruit large. Flesh yellow, juicy. Tree vigorous, hardy grower. A valuable orchard variety. Very productive.

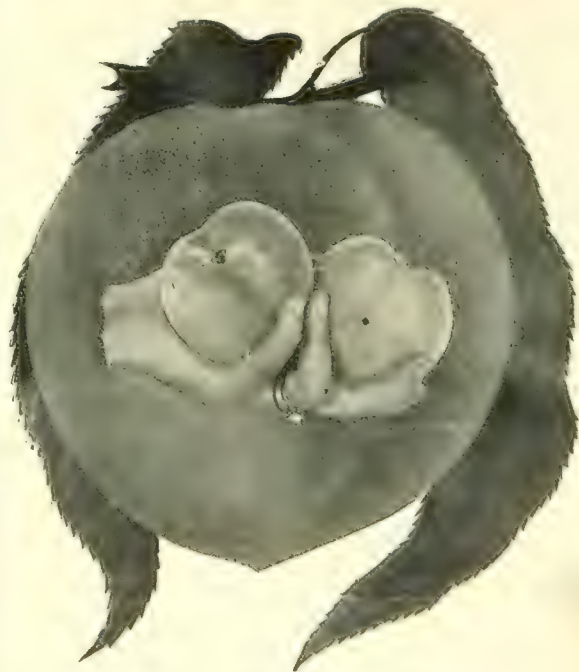
**Morris White.** Creamy white. Flesh white. Season middle of September. Fruit rather large, roundish; surface rather downy, of pale creamy white, rarely tinged with purple to the sun. Flesh slightly firm, wholly white, very free from the stone, melting, juicy, of a good, rich flavor. It is at its best in the middle states, though popular almost everywhere.

**Mountain Rose.** Nearly white, dark red cheek. Flesh white. Season medium early. Fruit large, roundish. Color whitish, covered with light and dark rich red. Flesh white, slightly stained at the stone, sweet, juicy. Separates freely from stone. Valuable sort for market. Origin, New Jersey.

**Oldmixon Free.** Red. Flesh light. Season middle of September. Fruit large, roundish, slightly oval, one side swollen. Flesh light colored and deep red at the stone, tender, rich, excellent. Skin pale, yellowish white, marbled with red, and with a deep red cheek when fully exposed. Succeeds well in all localities.

**Pride of Idaho.** Yellow, with slight blush. Season here follows Late Crawford. Fruit medium size. Originated in the mountains of western Idaho. The only one of two hundred seedlings that was not killed outright by the winter. It is stated that the original tree stood the hard winter of 1888 unprotected, when the mercury registered 42 degrees below zero, and bore a fair crop the following season. The wood resembles somewhat that of the plum, while the flesh of the fruit is that of the Peach, with the shipping qualities of the prune. This Peach must prove of great value in the North, where ordinary varieties cannot be grown.

**Richards.** Yellow, red cheek. Flesh yellow. Season middle of September. Received the first prize at the New York State Fair at Syracuse, N. Y., in 1895, for beautiful shape, color, quality, and extreme size. In 1892,



Richards.



## SELECT PEACHES, continued.

after thorough investigation, we purchased the original tree of the originator, and we now have complete control of the only stock of this variety. Since 1892 we have watched it in cultivation and in the orchard, and are now thoroughly convinced, after careful tests, that it properly ranks as one of the very best and most profitable market varieties. It bears young, and is a heavy cropper. Fruit is handsome and showy in color, and of most excellent quality. Bears shipment well. Tree hardy. Origin, central New York.

**Richmond.** Yellow, red cheek. Flesh yellow. Season late September. Fruit medium to large size, round. Flesh yellow, pink at the stone, melting, very good. Origin, N. Y.

**Salway.** Yellow, crimson cheek. Flesh yellow. Season very late. Fruit large, roundish. Flesh deep yellow, red at pit, sweet, juicy. A freestone. A very late, valuable market sort.

**Stump the World.** Red. Flesh white. Season middle and last of September. Fruit large, slightly oblong, with red cheek. Flesh white, with an excellent flavor, and free from the stone. Vigorous and productive.



Sneed.

**Sneed.** Creamy white, red blush. Flesh white. Extremely early. Fruit medium size, oval. Color creamy white, with rich red blush on sunny side. Flesh greenish white, fine-grained, juicy, sprightly, vinous, and adheres slightly to the stone; ripens evenly to the pit. Quality very good. This Peach has been cultivated in Tennessee and Mississippi for several years past, and has proved

remarkably free from decay. It is considered one of the best of the early varieties, the crop being usually marketed when Alexander is well colored, its period of maturity at Augusta, Ga., for the past 4 years, being on an average of 6 to 8 days before Alexander. Tree of thrifty growth and luxuriant foliage.

**Steven's Rareripe.** White, shaded red. Flesh white. Season late September and early October. Fruit large. Color white, shaded and mottled red. Flesh juicy, high quality. Reported as producing remarkably large crops in the vicinity of the Hudson River, New York state. Tree a heavy and regular bearer. Commences to ripen immediately after Late Crawford, and continues three or four weeks.

**Schumaker.** Greenish white and red. Flesh white. Season late July. Fruit large, round. Fairly freestone. Good quality. Pit small.

**Triumph.** Orange-yellow, red cheek. Flesh yellow. Season extremely early. Fruit medium size, round; skin dark orange-yellow, nearly covered with rich red and showing dark crimson on the sunny side. Flesh bright yellow, and ripens up all at once, and evenly clear to the pit. When fully ripe separates quite readily from the stone, so that it may fairly be classed as a freestone; quality good. Pit small. In the latitude of central Connecticut, Triumph ripens about July 20, and proportionally earlier further south. The fruit is large, with a very small pit. The great value of this Peach for shipping purposes is its yellow color and attractive appearance, and its being a good keeper. A cross between Alexander and Hill's Chili, two of the hardiest varieties known. Tree makes a very strong growth, blooms late, and is a sure and abundant bearer. Two-year-old trees have produced over half a bushel of fruit per tree. Keeping qualities remarkably good. Origin, Georgia. See cut, page 21.

**Wager.** Yellow. Flesh yellow. Season middle of September. Fruit fair size. Skin quite downy, of a light golden yellow when fully matured. Flesh bright yellow, good quality; fairly firm, moderately juicy, sweet; separates readily from the stone. A little later than Crawford Early. Valuable for canning and drying. Tree is hardy. Origin, West Bloomfield, N. Y.

**Wheatland.** Golden yellow, crimson cheek. Flesh yellow. Ripens September, between Early and Late Crawford. Fruit large, roundish, of excellent quality.

Flesh yellow, very firm, and bears shipment well. Tree productive. The originator reported 39 Peaches weighing 19 pounds. Origin, Wheatland, N. Y.

**Willott.** Yellow, with red cheek. Flesh yellow. Season middle to last of September. Fruit large; handsome. Flesh highest quality, melting, juicy. Freestone. Tree hardy, productive, producing specimens even in size.

## SELECT APRICOTS.

The season of ripening coming between the cherries and peaches, makes this fruit very desirable and valuable. In the leaf and the smoothness of the stone of the fruit, the Apricot resembles the plum, while in the downy surface of the fruit and excellent flavor, it resembles the peach.

**Alexander.** Of the Russian hardy race of Apricots. Color yellow, flecked with red, both skin and flesh. Season July 1. Fruit large, oblong. Tree hardy; an immense bearer. Flavor sweet, delicious.

**Early Golden.** Color wholly pale orange. Middle of July. Fruit small ( $1\frac{1}{4}$  inches in diameter), roundish oval. Flesh orange-yellow, moderately juicy, rich and sweet. Free from the stone. Kernel sweet. Tree hardy, productive. Origin, Dutchess county, New York.

**Early Moorpark.** Yellow, with red cheek. Last of July. Fruit medium size. A freestone. Superior quality.

**Harris.** Bright yellow, with red cheek. Late July. Fruit medium size. Flesh juicy. Freestone. Quality first-class. Tree a good grower, productive and hardy. Origin, New York state.

**J. L. Budd.** Of the Russian hardy race of Apricots. Color white, with red cheek. August. Fruit large. Flavor sweet, extra fine, with a sweet kernel, as finely flavored as an almond, and used for the same purpose. Tree hardy, strong grower and profuse bearer.

**Large Early Montgamet.** Pale yellow, with a tinge of red on sunny side. Middle or latter part of July. Fruit large and round; quality the best, and a fine shipper. A very choice medium early sort; one of the very best in cultivation. Tree is a good, strong, healthy grower, and will stand a great deal of cold. Has borne heavy crops of fruit with us, and from what we have seen, consider it one of the very best Apricots in cultivation.

**Moorpark.** Orange, with deep orange-red cheek and dark dots. Season medium, or



Large Early Montgamet.

two weeks after midsummer. Fruit large (2 inches in diameter), nearly round. Flesh bright, yellowish orange, firm, quite juicy, with rich, high flavor. Freestone.

**Peach.** Skin yellow, with a brownish cheek: August. Fruit large, roundish. Flesh yellow, juicy, rich and highly flavored.

**St. Ambrose.** Yellow, shaded with dark orange. Ripens here the fore part of July. Fruit large, freestone, the best quality. This is an extra fine Apricot. Tree a good grower and very productive. Very hardy. In heavy fruit with us, and from what we have seen, consider it one of the best in cultivation.

## SELECT NECTARINES.

**Early Violet.** Medium size; yellowish green, with a purple cheek. Flesh pale green, melting; freestone. Last of August.

**Red Roman.** Greenish yellow and red. Flesh greenish yellow; freestone. September.





Rea's Mammoth Quince.

## SELECT QUINCES.

From Cornell Agricultural Experiment Station Bulletin, by Prof. L. H. Bailey.

"The Quince crop is reliable, and not easily destroyed by capricious variations in weather. Trees are hardy and productive, easy to prune and spray, and diseases and insects, while rather numerous, are held in check with comparative ease, with the single exception of pear-blight. The lands should be retentive of moisture, but not wet and soggy. Good drainage is as essential to Quince culture as it is to the growing of pears or other fruits.

"Quince orchards should be given clean culture. The roots are usually shallow, and very shallow tillage is generally best. Probably the best results will be obtained, in the long run, if the trees are set 14 or 15 feet apart each way.

"The first fruits of consequence may be expected when the tree is 3 or 4 years planted, although the Quince does not arrive at full productiveness until it is 9 or 10, or more years old. An average crop for an orchard in full bearing is one bushel of first-class fruit to the tree, but this yield is exceeded in some years. Careful attention to handling and planting pays as well with the Quince as with other fruits.

"Pear-blight is the most serious disease of Quince trees, and there is no way of keeping it in check but to cut off and burn all affected parts.

"Three insects are mischievous in western New York Quince orchards: The borer (search for it twice a year), the codlin moth (put Paris green in the Bordeaux mixture), and the Quince curculio (jar it onto sheets, as you would the plum curculio)."

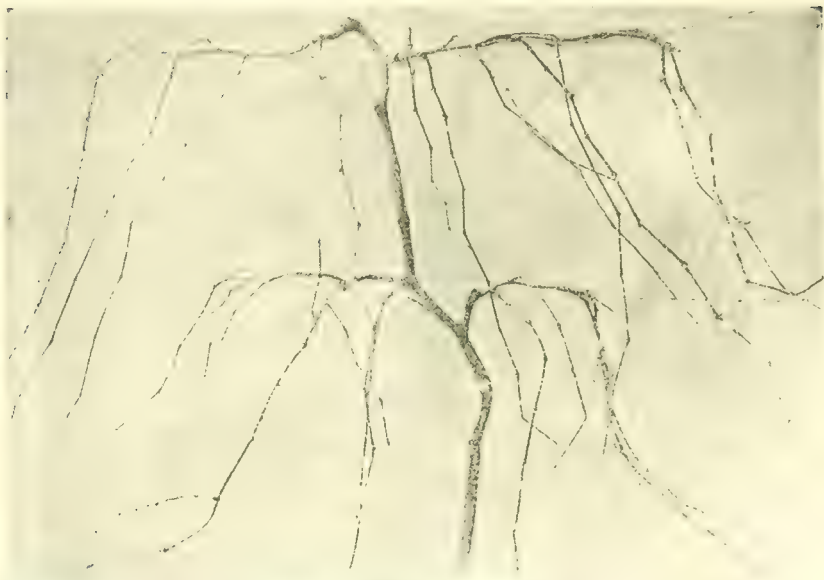
**Bourgeat.** Bright golden yellow. Ready for use from November through to March or April. The new golden prolific Quince. Pronounced by a responsible grower, who has fruited it for 6 years, a profuse bearer, of large, handsome, showy, richly colored fruit, that actually keeps like Baldwin apples, in a good cellar, until spring. The core is very small. Will cook without hardness, like apples. Tree is a robust grower. Origin, France.

**Champion.** Greenish yellow. Season late. Fruit large, distinctly pear form, furrowed about the top. Flesh tender, delicate flavor. Cooks as tender as apples. Tree bears abundantly while young. In some places it does not ripen well. A good keeper. In a test at Cornell University Agricultural Experiment Station (New York), in 1892-93-94—including Orange, Champion, Rea's and Meech—the Champion averaged the most productive, with Orange a close second. Of American origin.

**Meech's Prolific.** Pale, bright orange, with a thin fuzz. Midseason. Fruit large, and in shape ranges from nearly apple shape to short pear shape, somewhat furrowed at the top. Very fragrant, good flavor. Bears young. Productive. Supposed to have originated in Connecticut.

**Orange (Apple Quince).** Bright pale orange. Ripens after mid-autumn, and keeps until February under good conditions. The surface only moderately fuzzy. Fruit variable in size and shape, but in the ideal or original form is distinctly flattened at both ends, like an apple. The most extensively cultivated of the old varieties.

**Rea (Rea's Mammoth).** Rich orange, surface very smooth. Ripens early. Fruit large to very large, pear form. Flesh of excellent quality. Tree a very strong grower, distinguished by its short stature. Does best under high cultivation. We consider that for orchard purposes, as well as a garden tree, it is very valuable. Origin, Cocksackie, N. Y.



**THE TRUE KNIFFIN TRAINING.**

[Above cut is used by courtesy of Prof. L. H. Bailey, Cornell University, State Experiment Station.]

## SELECT GRAPES.

The soil for the Grape should be dry and warm, thoroughly drained, deeply worked, and well manured, always bearing in mind that a sunny exposure is desirable—a slope to the south or east is the best. If a northern incline must be had, only the hardy, early ripening sorts should be planted.

### DIRECTIONS FOR TRIMMING GRAPE VINES.

Grape vines may be trimmed at any time in the winter, but it should be done at least a month prior to the time the buds usually swell.

In trimming, the vine should always be cut off from 1 to 2 inches beyond the last bud that is to be left, that the bud may not be injured from the drying out of the end of the cane.

If planted in the spring, at the time of transplanting, cut back to one stem and leave but one eye on the stem. If planted in the fall, defer pruning until spring.

Vines should be planted 8 to 12 feet apart, according to variety, as some of the more rapid-growing sorts require nearly double the room of others equally vigorous, but which are compact, short-jointed kinds.

Strong posts should be set 40 to 50 feet apart, and slighter supports, to which wire should be stapled, will answer between. No. 9 wire will answer. Lower wire,  $3\frac{1}{2}$  feet from the ground; upper wire, 5 feet 9 inches from the ground.

In northern sections, to winter successfully, lay the vines on the ground each fall, and fasten securely with pegs, or a little earth thrown on them will hold them close to the ground, where they will usually be covered with snow. Tie to trellis in early spring. In southern sections, let them remain on the trellis.

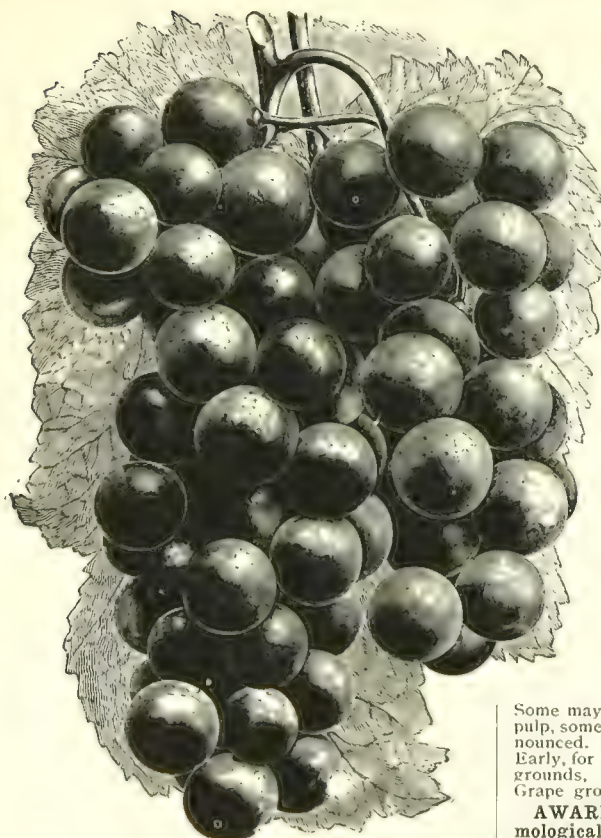
**THESE DIRECTIONS** are based on what is about an average growth of vine; if the growth is less than an average growth at any period, repeat the trimming directions of the previous season until the growth of the vine is up to the position desired.

### LIST OF LEADING GRAPES.

**Brighton. Red. Early.** Its remarkable hardness of vine, large and compact bunch, delicate skin, almost seedless pulp, and rich flavor are qualities that make the Brighton one of the most desirable sorts. It has thick, large foliage, and is thus enabled to stand the heat of summer. Being a vigorous grower, it exhibits extreme hardiness, and is

enabled to endure the winter in colder sections. Valuable both as a family Grape and for vineyard purposes. Berries above medium size to large; color usually of a red when first ripe, and changing to a reddish purple if allowed to hang long on the vine, covered with a blue bloom. Fruit keeps well for an early Grape, either on or off the vine.





Campbell's Early.

## SELECT GRAPES, continued.

**Campbell's Early.** Black. From middle to last of August here. The vine is of strong, hardy, vigorous growth; the foliage thick, heavy and perfectly healthy; bears abundantly of large, handsome clusters. The fruit ripens very early, and is of excellent quality; is a remarkably good keeper and a good shipper. A bunch of the Campbell's Early sent to the United States Department of Agriculture, Washington, D. C., grown in 1896, weighed 19 ounces. In this part of New York state, the period of full maturity is from the middle to the last of August.

Berries large, nearly round, often an inch or more in diameter; black, with light purple bloom. Skin thin but very tenacious, bearing handling and shipping admirably. Flavor rich, sweet, slightly vinous; pure, with no foxiness, coarseness or unpleasant acidity from the skin to the center. Flesh rather firm, but tender and of equal consistency, parting easily from its few and small seeds. Its season is very early, often showing color late in July, and ripening, according to the season, from the 15th to the last of August, at Delaware, Ohio.

It has very remarkable keeping qualities. Has hung upon the vines, sound and perfect,

for six weeks or more after ripening, with no tendency to shell off or fall from the stems. A few clusters were put in cold storage September 15 and taken out December 15, apparently as perfect as when stored, and seeming as though they might have been kept in good condition until spring. A good keeper and shipper.

*The Rural New-Yorker* of October 9, 1897, prints:

A second vine of Campbell's Early Grape was received from the introducer, in the fall of 1895. It bore one bunch only, and this on a branch not over 6 inches above the soil. It was bagged when the berries were the size of the earliest peas, and the bag was not removed until September 21. The berries on the vine received from the originator during 1894, ripened between August 25 and early September, almost exactly with Moore's Early. We were, therefore, prepared to find the berries of the bagged bunch of the 1895 vine shriveled and fallen from the stems. The berries and bunch, however, were absolutely perfect. Every berry was the size of every other berry, and all of them the size of the finest Concord. This is a most valuable characteristic of this splendid Grape—uniformity of size and ripening. Its keeping qualities, as judged by this one trial, are also remarkable. The berries adhere as firmly to the stems as do those of the earlier season.

Some may prefer a sweeter Grape, some with less pulp, some with other qualities more or less pronounced. In the writer's opinion, Campbell's Early, for the climate of *The Rural New-Yorker* grounds, is the nearest to perfection of any Grape grown there.

**AWARDS.**—Wilder Medal, American Pomological Society, 1897, Medal of Excellence, American Institute, 1897. First Premiums from many Agricultural and Horticultural Societies.

**Concord.** Black. Latter part of September here. There is no variety as generally planted as this, extensive both as to the quantity of vines planted and the many localities where it is grown. The Concord succeeds well in most all parts of the country. The vine is a very vigorous grower, enormously productive, almost free from disease. Berries large, round, black, with a blue bloom. Bunch large, compact, shouldered. Skin tender. Flesh juicy, sweet. A profitable market sort. The fruit is too tender for shipping long distances.

**Delaware.** Red. Early September. Its earliness, hardness, and admirable sweetness have become well known to the public. Berries rather small. Skin of a beautiful, bright red color. Bunch medium in size, compact. Flesh is without hardness or acidity in its pulp, exceedingly sweet, juicy. Vine moderately vigorous and productive. Bears when young. Oftentimes injured by allowing it to overbear. Should have a strong, rich soil to do its best.

**Eaton.** Black. A little earlier than Concord. Berry large, round, black, blue bloom; juicy, tender. Bunch large, shouldered.

**Empire State. White.** Ripens early, almost with Concord. Bunch large and shouldered. Berry medium to large, and roundish oval; of excellent quality. Color white, with light tinge of yellow, covered with thick white bloom. A good keeper. The vine is vigorous and hardy. Origin, Newburgh, N. Y.

**Moore's Diamond. White.** Ripens about with Delaware. Described as a pure native; leaf resembles Concord; free from mildew. Bunch large, compact. Berry about the size of Concord. Color greenish white, with a yellow tinge when fully ripe. Flesh juicy, sweet to the center, free from foxiness, and almost without pulp. Quality very good. Vine vigorous and productive. While the skin is thin, it is sufficiently tough to stand handling and shipping well. Originated by Jacob Moore.

**Moore's Early. Black.** About twenty days earlier than Concord. Fruit large and showy, and the variety is remarkable for size, beauty, productiveness, earliness and hardness. It received first premium from New England fairs and the Massachusetts Horticultural Society. Fruit black, very large and handsome, with a heavy bloom. Quality about the same as Concord. Vine exceedingly hardy. It has stood 20 degrees below zero, and has been exempt from mildew and disease. This hardy variety was raised by John B. Moore, of Concord, Mass., and was first fruited in 1872.

**Niagara. White.** Ripens with the Concord. The originator says:

This new white Grape originated in Lockport, N. Y., in 1868, and is a cross between the Concord and the Cassady; first fruit in 1872; it has since regularly borne large crops of fine fruit. The vine is a remarkably strong grower and very hardy. The leaves are thick and leathery, and dark, glossy green. Bunches very large and uniform, and very compact. Berries as large as or larger than Concord. Skin thin but tough, which insures their shipping qualities. Quality good, very little pulp, melting and sweet to the center.

**Pocklington. White.** Ripens with Concord. Vine very vigorous, hardy and productive. Bunch and berry of good size. Color a light lemon-yellow. Flesh moderately tender, sweet, with a peculiar aromatic flavor. Originated at Sandy Hill, New York.

**Rogers' No. 15 (Agawam). Red.** Ripens soon after Concord. Bunches large, generally loose. Berries large, round. Color dark red, or maroon. Flesh tender, juicy, vinous, with a high, peculiar flavor. Vine very vigorous, hardy and productive.

**Rogers' No. 19 (Merrimac). Black.** Early. Bunches rather large, short and broad, compact. Berries large, round; black, with a slight bloom. Flesh tender nearly to the center, juicy, sweet and high flavored.

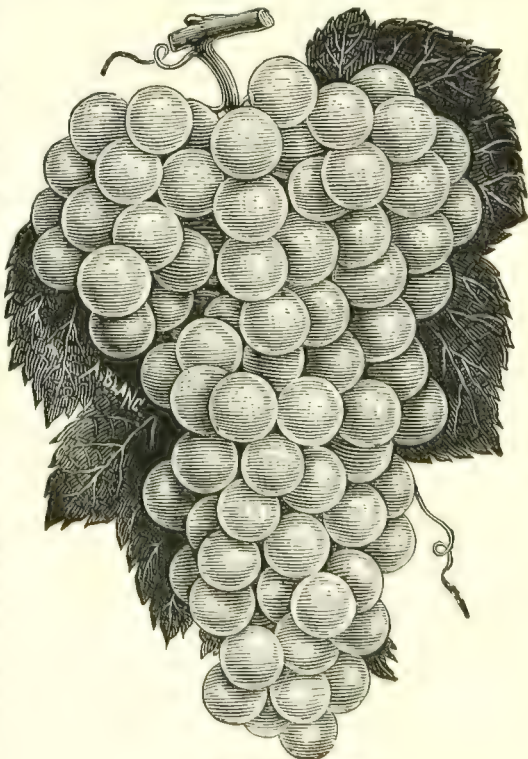
**Rogers' No. 4 (Wilder). Black.** Ripens with the Concord. Bunches very large, shouldered, compact. Berry large, round, black, with a thin bloom. Flesh tender, sweet and sprightly. Quality best. Vine vigorous, hardy and productive. Succeeds in many localities.

**Rogers' No. 9 (Lindley). Red.** Rather early. Bunches medium size, rather long and compact. Berry medium size, round, reddish, sweet. Vine vigorous, productive.

**Rogers' No. 22 (Salem). Purple.** Early when not overstocked, sometimes as early as Delaware. Bunches large, compact, shouldered. Berries large, round, purple. Skin thick and firm. Flesh sweet and tender, with a rich, aromatic flavor. Vine moderately vigorous, hardy, healthy. It is a splendid keeper and of good quality.

**Vergennes. Red.** Ripens with Concord. A fine red variety of delicious flavor. Very hardy and a strong grower. Clusters large. Berries large, meaty and tender. Origin, Vergennes, Vermont.

**Worden. Black.** Ten days earlier than Concord, and superior to it in flavor. Bunches large, compact, handsome. Berries large, round, of excellent quality. Extra hardy. A seedling of Concord. Worden is a good Grape.



Moore's Diamond.



## SELECT CURRANTS.

The Currant combines hardiness, ease of culture, great and uniform productiveness, pleasant flavor, and early ripening, making one of the most valuable fruits. Good cultivation and pruning will more than triple the size of the fruit. Old bushes should have the old and stunted wood cut out, and thrifty shoots left at regular distances. Old manure should be spaded-in about the roots, and the soil kept clean, cultivated, and mellow. As the Currant starts and expands its leaves very early, this work should be performed as soon as the frost leaves the soil. Currants thrive best when they are somewhat shaded, consequently an excellent position for them is in the rows of young orchard trees. They can be successfully planted spring or fall.

Set 4 to 5 feet apart each way.

**Cherry. Red. Ripe early July here.** Fruit very large, nearly twice the size of the common Red Dutch; often  $\frac{3}{4}$  of an inch in diameter; round; quite acid. Clusters moderately short. Growth of plant is tall, large and luxuriant.

**Fay's Prolific. Red. Ripe about July 10 to 15 here.** A variety of great value on account of its fine quality and the extraordinary size of its bunches. The bunches are really enormous, being sometimes over 7 inches in length.

**Lee's Prolific. Black.** The fruit is of enormous size, wonderfully productive, and of agreeable flavor. Long stems of large berries. Very desirable for canning, and



White Grape Currant.

while a taste for this fruit often has to be acquired, it is always highly esteemed by those who are accustomed to use it. Plants are very hardy, and it is well suited to cold country sections.

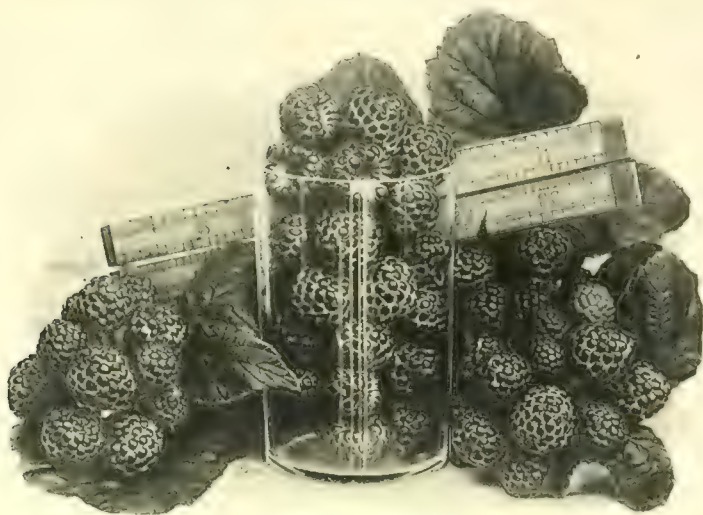
**Moore's Ruby. Light red. Ripe early July here.** A new sweet red Currant, recently introduced by Mr. Jacob Moore, the originator of the Moore's Diamond Grape. Prof. L. H. Bailey, of Cornell University, says of it:

Everything I have seen of the Moore's Ruby Currant pleases me, so far as its value for home use and dessert is concerned. It is a Currant of most excellent quality.

**Newark. Red. Ripe early July here.** We have for several years been growing and testing this new Currant, which has, after careful and painstaking examination, entirely satisfied us with its many desirable and superior qualities. First, it is a great producer; secondly, it is of excellent quality, and will hang long on the bush; and, lastly, it is a strong and vigorous grower, and produces a great crop the second year after transplanting. We have the entire and only stock. The fruit of this Currant is red; size above medium; subacid; bunch of good length. The fruit is borne in masses on the bush.

**White Grape. White. Ripe early July here.** Very large. Mild flavor. Excellent quality; good for table use. Very valuable.

**Wilder. Red. Ripe middle July here.** Fruit large, fine flavor. Very profitable for market, being a great yielder.



Black Diamond.

## SELECT RASPBERRIES.

Set 3 ft. apart in row, and have rows 7 ft. apart.

**Black Diamond. Black.** Time of ripening here, first half of July. The Black Diamond has shown itself to be the most profitable black Raspberry in the world. It is sweeter than anything else on the market, more pulpy, and contains fewer seeds; at the same time is firm, and an A No. 1 shipper. It is a grand berry for drying, the dried berries being a jet black, and containing all the richness, fine flavor and sweetness of the fresh fruit. Both the fresh and dried fruit command a high price on the market. We are offered 2 cents per pound more for our Black Diamond dried fruit than is being paid for choice fruit of other varieties. As our mature plants have yielded over 5,000 quarts per acre, this difference alone means \$33 per acre.

**For health and vigor of plant, it cannot be surpassed.** We have not seen one single stalk of Black Diamond affected with anthracnose. We never have to spray the Black Diamond, while other varieties, side by side with it, lose from an eighth to a quarter of their growing wood by fungus. One of the secrets of its great success is its ability to withstand the attacks of fungus.

We have a patch of Black Diamond on our place covering 11-10 acres of land, planted in the spring of 1895. This land has received no manure or other fertilization for 10 years. In 1896 the yield from this patch was over 1,500 quarts per acre; in 1897 the yield was 5,640 quarts for the piece, or over 5,000 quarts per acre. We estimate that 1,000 quarts per acre were lost by the very wet weather and heavy rains which we had when the berries were ripening. The rain splashed the mud on the berries, and in many cases buried the lower branches in the ground. Most of the

fruit from the lower branches was lost in this way, but still we gathered over 5,000 quarts per acre.

The tremendous yield, and the ease of picking the berries, made it possible to get our picking done for 1½ cents per quart, where others were paying 2 cents per quart.

A yield of 1,000 quarts of the Ohio per acre the first season is large, and 3,000 quarts for the second season is about the average, while we have a patch of Black Diamond planted in the spring of 1896, containing six acres, from which we picked 9,000 quarts this year (1897).

From *The Rural New-Yorker* of February 19, 1898:

\* \* Black Diamond Raspberry was received during the spring of 1896. We find this blackcap among the most productive varieties ever tried at the Rural grounds. The berries are as large as those of the Gregg, the drupelets being twice as those of the Cumberland. The quality is very good. It is among the earliest, and wonderfully productive, the one objection being that the berries have too much bloom. \* \*

[The stems, on the end of which the berries grow, project from the drupelets. The superiority of a variety having large drupelets is at once apparent.]

From the New York Experiment Station, Geneva, N. Y., August 23, 1897:

The Black Diamond gave us its first fruit this season. It promises to be a valuable acquisition to our list of black Raspberries. Our notes on this variety are as follows: Fruit large size, good color and quality, firm and productive; plants strong and vigorous, worthy of further testing. We have not figured up the yield of the different varieties, so we are unable to give you the comparative productiveness of the Black Diamond.

Very truly,  
W. PADDOCK.



## SELECT RASPBERRIES, continued.

**Columbian. Purplish red. July 10 to 15 here.** A seedling of the Cuthbert, grown near the Gregg blackcap Raspberry, and believed to be a cross between the two. Very hardy, enduring 28 degrees below zero without harm. Wonderfully prolific; 3,500 bushes produced, on an average, 5 quarts each, or 17,500 quarts. In 1896, from 925 yielding bushes, or one-third of an acre, nearly 4,000 quarts were picked. A fine evaporating berry, retaining color, form and flavor in a most remarkable degree, and selling for fully one-third more than blackcaps. In a thorough test in 1896 and 1897, it proved equally as good as Ohio, taking about 3 quarts to the pound. An excellent shipper; very little crumbling or crushing either in handling or transportation, and finds a ready market. For canning purposes it holds its form, is of a beautiful color, is sweet and rich in flavor, and shrinks very little in canning. Fruit very large, often an inch in diameter; shape somewhat conical; color dark red, bordering on purple; adheres firmly to the stem, and will dry on the bush if not picked; does not drop off, like other berries. Seed small, and deeply imbedded in a rich, juicy pulp, with a distinct flavor of its own, making it a most delicious table berry. Fruiting season is very uniform, extending from July 12 to early August. Generally lasts a week or 10 days longer than the Ohio, depending on the season, and maintaining its high quality to the last. Its manner of fruiting is peculiar to itself, each berry growing upon a separate stem from 2 to 4 inches long, from which it is removed without crumbling. A very vigorous grower; canes 10 to 15 feet in length, and often over an inch in diameter, strong and woody; color light green, changing to bright red in autumn. Foliage is very handsome and healthful, light green in color, retaining its health and hue until killed by autumn frosts. Roots are large and spreading, and penetrate the soil to a great depth; thus Columbian is enabled to resist drought and windstorms. Propagates readily from the tips, and never suckers from the roots, like other red berries.

**Cuthbert (Queen of the Market). Red.** Reports from all parts of the country uniformly rank the Cuthbert high. It is a tall, vigorous grower very productive and hardy, and remains in fruit a long time. Berries large, conical, deep crimson, very firm, and of excellent quality.

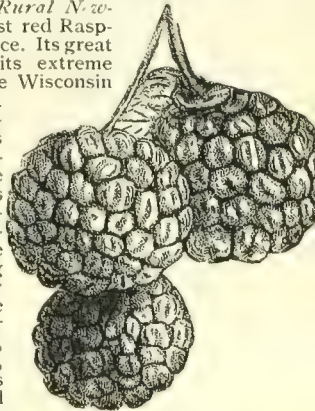
**Golden Queen. Golden yellow.** The originator says: "In flavor it rivals that high-quality Raspberry, Brinckle's Orange. In color a rich, bright, creamy yellow, imparting to it a most appetizing effect, both in the crate and upon the table. In size it challenges the large Cuthbert. In vigor it fully equals its parent, the Cuthbert. In productiveness, it excels the prolific Cuthbert. In hardness it has no superior." Possibly not practical to set a large field, but for home use, and in a small way for market purposes, is desirable. Origin, Iowa.

**Gregg. Black. First half of July here.** Berries large, black, with a light bloom, comparatively free from seeds, and in quality good. The growth of the cane is very strong.

As a market berry it is exceedingly valuable, the fruit being very firm, so as to ship in the best order. Originated on the Ohio river, near Lawrenceburg, Ind.

**Johnson's Sweet. Black. First half of July here.** Smaller than Gregg; of same color. A good, strong grower; healthy and hardy. Ripens with Tyler. Stands up well in picking and handling. Its merit is in its high quality and delicious sweetness of berry.

**The Loudon. Red. July 10 to 15 here.** The Loudon is pronounced, by E. S. Carman, of *The Rural New-Yorker*, the best red Raspberry in existence. Its great value lies in its extreme hardness. The Wisconsin and Minnesota State Horticultural Societies sent a committee to examine it on the grounds of the originator, and they reported it as "the most promising red Raspberry that we have ever seen for productiveness, size, quality, flavor, firmness of fruit and hardness, vigor and health of plant." The canes are very strong, vigorous and hardy. Fruit bright red. With us, the Loudon averaged about same size as the Cuthbert with ordinary culture. When well grown, the Cuthbert is perhaps the larger. The Loudon is probably the hardest red berry grown, and will be largely planted, and is certain to become one of the leading market sorts. A few plants secured now will in a short time make plants enough for a large plantation.



Loudon.

**Marlboro. Red. Early July here.** One of the hardest, earliest, largest, and best carrying berries. Splendid quality, handsome color, and a great bearer. In regard to its earliness, *The Rural New-Yorker* acknowledges the receipt of ripe fruit on the 26th of June.

**Ohio. Black. First half of July here.** Very hardy, vigorous, and an enormous bearer. Flavor superior, and will bear shipping well and keep long. This is one of the most valuable blackcaps yet introduced. It takes high rank for drying purposes.

**Shaffer's Colossal. Purple.** This plant is a strong and large grower, is "ironclad" in hardness, and yields an immense crop of dark, purplish red berries. The fruit is large, firm, and of a sprightly subacid flavor. This is a cap variety, and increases from the tips, like the blackcap.

**Tyler. Black. Early July here.** Ripens its entire crop within a very short period. Canes vigorous, strong and hardy, with foliage healthy; wonderfully productive. Fruit of good size, jet black, with but little bloom; firm, and of sweet, pleasant flavor. Valuable for market.

## SELECT GOOSEBERRIES.

Set 4 to 5 feet apart each way.

**Columbus.** Greenish yellow. Fruit large, handsome, of excellent quality. The plant is vigorous and productive, and does not mildew. It merits a place in every garden. The editor of *The Rural New-Yorker* says:

It is the best variety yet introduced, and seems close to a perfect Gooseberry for our climate.

**Downing.** Greenish white. July 15 here. Fruit large, oval. Plant very vigorous and hardy, with stiff, strong shoots. Foliage heavy, covering the fruit from the sun and resisting mildew. Bears most abundantly, and is profitable for market and home use. The best of all the American varieties.

**Houghton's Seedling.** Pale red. Fruit small to medium size, roundish, oval, sweet. Very productive and valuable.

**Industry.** Dark red. Fruit large, oval, hairy. Although a foreign variety, it has succeeded admirably, and we have fruited it with great satisfaction for several seasons. Attains a marketable size very early in the Gooseberry season, thus commanding the high prices of the early market. Bears enormous crops. A remarkably vigorous plant. Flavor excellent. Origin, England.

**Pearl.** Yellowish green. Fruit extremely large; quality good. The plant is an extremely heavy bearer, and has been found to be entirely free from mildew. A 3-year-old bush is reported as having about 2,500 berries. A seedling of Houghton, crossed with Ashton seedling.

**Smith's Improved.** Light green when ripe. About July 10 here. One of the largest American varieties. Fruit oval in form, sweet and excellent. Plant vigorous, healthy and hardy. Raised from seed by Dr. Smith, of Vermont.

**White Smith.** Yellowish white. About July 15 here. Fruit large, roundish, oblong and smooth; slightly downy. Flavor first rate, and generally succeeds well.



Downing Gooseberries.

## SELECT BLACKBERRIES.

Set 2 ft. apart in the row, and have rows 6 ft. apart.

**Erie.** Black. Last half of August here; holds out late. A strong, healthy grower, free from diseases liable to attack the Blackberry. Productive as the Lawton, and without its failings. Very early; ripens even before the Wilson. Extra good quality. Fruit large, fine, berries jet-black in color, firm in texture, making it necessarily a popular sort for distant shipment, as well as for home market. Hardy, having withstood a temperature of 25 degrees below zero. Very desirable for our customers in northern climates. A chance seedling, which sprung up on the shores of Lake Erie, in northern Ohio.

**Iceberg.** White. The scientifically bred, pedigreed berry raised by Luther Burbank, the "Wizard of Horticulture." The following is Mr. Burbank's own description, and its accuracy will be vouched for by all who know him, as he is commendably conservative in all that he says about his creations. In his desire to mislead no one, he leans rather toward under-rating than exaggerating the value of his originations. He says:

Owing to the somewhat unsatisfactory qualities of white Blackberries so far known, the impression may have been entertained by some that no white Blackberry could be as productive and hardy, with berries as early, abundant, large, handsome and delicious as the best black ones.

The well-known Lawton is, when ripened, unsurpassed, and very generally known as the most productive market berry. Owing to its fixity of race, it will reproduce itself from seed almost exactly, and its seedlings will not be influenced, when raised from seed pollinated by other varieties, but it readily imparts its good qualities when employed as the staminate parent. One of the great grandparents of Iceberg was Lawton. The first generation of seedlings, when crossed with Crystal White, was all black; the second also, though varying much in other respects; but the third produced this wonderful plant, bearing the snowiest white berries ever seen.

Very little attention was paid to the long rows of cross-bred descendants, until one day this berry was discovered, among its black relatives, with the canes bending in various directions with their load of delicious, snowy berries, which are not only white, but so transparent that the seeds, which are unusually small, may be seen in the berries when ripe.

Clusters larger than those of Lawton; berries, as near as can be judged, were at least as large, earlier, sweeter, more tender and melting throughout, though as firm as Lawton is when ripe.

From Prof. Emory E. Smith, Leland Stanford, Jr. University, Cal.:

I can still see in my mind's eye those magnificent hybrid berries in your experiment grounds, but I feel I cannot fully appreciate your work, for it would take weeks, rather than hours, to give the experiments the careful inspection which they deserve.





Rathbun Blackberry.

## SELECT BLACKBERRIES, continued.

**Rathbun. Black.** Fruit jet-black, with a high polish, and sufficiently firm to handle and carry well. The whole crop is of a very uniform size. A comparison made in the season of 1896, taking the berries in each case just as they averaged, showed that a common strawberry quart box of Snyder counted 164 berries; the same package of Rathbun

counted but 45 berries. A specimen measured was  $1\frac{3}{4}$  inches in length and  $1\frac{3}{8}$  inches in diameter. The fruit of the Rathbun, unlike most Blackberries, has no hard core, in fact, no core is perceived in eating it; all is soft, sweet and luscious, with a high flavor. The plant is a strong, erect grower, producing few suckers. As to its hardness, it has stood 15 to 18 degrees below zero.

The Rathbun Blackberry is now (July) in full fruit, and we are very much pleased with it. It is midway between a Blackberry and a dewberry in habit as also in earliness. The berries are exceedingly large and glossy, jet black and of good quality. I certainly think that there is a future for it. —L. H. BAILEY, Professor of Horticulture, Cornell University, Ithaca, N. Y.

**Snyder. Black.** Ripens here first part of August. Enormously productive. Medium size. No hard, sour core. Half as many thorns as Lawton or Kittatinny, and they are nearly straight and short.

**Wachusett. Black.** We quote the following:

Fruit of medium size, oblong-oval, moderately firm; sweet and good, little acid. Good keeper, ships well, very hardy, and free from stiff thorns than others.

**Lucretia Dewberry.** A trailing variety of the Blackberry. Ripens between the raspberry and the Blackberry. A very desirable fruit.

## SELECT ASPARAGUS. (FOR FALL OR SPRING SETTING.)

**How to Grow for Family Use.** There is no vegetable that can be produced so easily and cheaply. A bed of Asparagus of about 100 plants will give an abundant supply for an ordinary family. Asparagus is a very profitable vegetable to grow, as the crop is always salable at some figure, and probably the reason the market has never been glutted is due to the fact that Asparagus culture has been regarded by most people as extremely difficult. We know instances where it has paid \$250 to \$400 per acre clear.

**To Plant for Market.** Dig the soil deep, and incorporate in it a heavy coat of rotted manure or well decomposed compost. Plant the roots in rows 4 to 6 feet apart, and 3 feet between the roots, 8 or 10 inches deep. Cover the bed in fall with manure; fork it in in the spring. **For Home Garden.** Set plants 1 foot apart in rows 18 inches wide, for hand hoeing, with same treatment as for market.

**Cultivation and Cutting.** After the plants are well started, give frequent and thorough cultivation, and draw a little earth into the furrows at each hoeing until they are filled. Early the next spring spade in a heavy dressing of manure, and 1 quart of salt to each square rod; and cultivate well until the plants begin to die down. The next season the bed may be cut over two or three times, but if this is done all the short shoots, no matter how small, should be cut, and after the final cutting give a good dressing of manure, ashes and salt. The next season the bed should give a full crop, and be annually dressed with manure, ashes and salt after the last cutting, and well but not deeply cultivated, until the plants occupy the whole space. In fall, as soon as tops are yellow, cut and burn them.

**Insects.** Young beds are sometimes attacked by black beetles, and if the grower does not have chickens running loose, a light dusting of air-slaked lime will end the beetle trouble. Poultry will be glad to do a good turn in the Asparagus bed for the harm they do in other places.

**Conover's Colossal.** A variety universally acknowledged to be an improvement on the older sorts, on account of its immense size, and being remarkably tender and high flavored. It is claimed that it can be cut one year sooner than other varieties. It is probably the most profitable market sort, as it produces the largest spears, and brings nearly double the price of other kinds. We recommend this very highly.

## SELECT RHUBARB.

Rhubarb, familiarly known as the Pie Plant or Wine Plant, is cultivated in gardens for its leaf stalks, which are used for pies, tarts, canning, etc. The large size, fine texture and superior quality of the new varieties of Rhubarb over the old cultivated "Pie Plant" cannot be conceived by those who have never grown it. It is very profitable to grow for market purposes, is always in demand, and commands good prices. It grows very rapidly, and requires little cultivation.

**Planting and Cultivating.** The plants should be set 4 feet apart each way, and the stalks will be fit for use the second season after planting. It is benefited by a heavy coat of strong, rich manure.

**Myatt's Linnaeus.** This is the finest Rhubarb produced, early, very tender, and has a mild subacid flavor, not "stringy" or tough. The plant is large, and for pies or other culinary purposes it is the housewife's favorite.

**Early Scarlet.** A rather small plant, but very early, tender and good.

**Victoria.** Medium size, and quite a favorite in certain sections. It is early, tender and quite productive.

# Ornamental Trees

FOR STREET, AVENUE, PARK, OR CEMETERY AND LAWN.

**BASSWOOD.** (See Linden, American.)

**BEECH, Purple-leaved** (*Fagus purpurea*). A fine shade tree, hardy and a rapid grower after it gets well established in the ground; long-lived; but few insect enemies. The foliage in the spring is deep purple, and later in the season changes to crimson, and again, in the fall, to a dull, purplish green, making an ornamental and attractive contrast with the green of other trees. The finest of all purple-leaved trees. **Suitable for lawn.** When fully grown, 30 to 50 feet high.

**BIRCH, Cut-leaved** (*Betula laciniata pendula*). One of the most popular and desirable of all the weeping or pendulous trees. The bark of the tree, on its upright trunk and larger spreading branches, is a beautiful, clean, bright white, or in some cases a little silvery. The smaller branches, thickly set with their attractive leaves, all have a graceful, drooping habit. The leaves are a rich, glossy green, dainty, and deeply cut. The tree is a fairly rapid grower when once established, and is perfectly hardy, full-grown specimens standing in Minnesota, where the mercury drops 40 degrees below zero. The tall, slender, yet vigorous growth, silvery white bark, small, gracefully drooping branches, with their delicately cut foliage, combine attractive characteristics. For a dainty, elegant effect, adding richness to any place, plant this tree. **Suitable for street, cemetery or lawn.** Is now quite extensively used for street and avenue planting. For these latter uses, the lower branches are all trimmed off close to the trunk up to a height of 7 to 9 feet. When fully grown, 40 to 50 feet high.

**Young's Weeping** (*Betula Youngii*). The trees, when delivered, are about 4 to 8 feet high; the trunks grow practically no taller, and the growth of the branches is in general curving downward, forming a pendulous head, drooping to the ground in fine, thread-like shoots. The leaves are a handsome green.

**BOX ELDER.** (See Maple, Ash-leaved.)

**BUTTERNUT.** (See Walnut, Butternut.)

**CATALPA, Syringa-leaved** (*Syringafolia*). A rapid-growing, spreading, irregular tree, with very large, heart-shaped leaves. Produces pyramidal clusters of white and purple flowers a foot long in July, when few trees are in bloom. Blossoms fragrant. Effective, tropical looking trees. When fully grown, 25 to 35 feet high. A native of the southern states. **Suitable for lawn and street.**

**CHESTNUT, American** (*Castanea Americana*). Among our large collection of ornamental, native forest trees, the Chestnut is unrivalled for its beauty. When grown in open ground, it assumes an elegant, symmetrical form. The foliage is rich, glossy and healthy, and the whole tree is covered in early summer with long, pendent tassel-like blossoms, making a handsome appearance. It is especially desirable for the sweet, eatable nuts (**who does not like to go chestnutting?**) which it bears profusely a few years after transplanting. Desirable for shade for avenues. The Chestnut thrives well on any soil except a wet one. When nursery-grown, bears transplanting well, and when once established, is a rapid grower and soon comes into bearing. Grows very high. **Suitable for both lawn and street.**



Cut-leaved Birch.



## ORNAMENTAL TREES, continued.

**CHESTNUT, Spanish** (*Castanea vesca*). A valuable species, for ornament and fruit. A large, handsome lawn tree. The fruit is larger than the American Sweet Chestnut. Suitable for both lawn and street.

**ELM, American White** (*Ulmus Americana*). A native tree of large size, with open, spreading head, and graceful, drooping branches. A rapid grower, long-lived. Very popular in nearly all sections, and valuable for street planting. Succeeds admirably where the soil is somewhat heavy and damp. When fully grown, 30 to 40 feet. Suitable for lawn or street.

**Camperdown** (*Ulmus Camperdown pendula*). Trees, when delivered, are from 5 to 8 feet high, and trunk grows practically no taller. The branches make a zigzag growth outward and downward for several feet in a single season, forming one of the most picturesque and handsome drooping trees. Leaves are of a dark, glossy green, of large size, completely covering the tree, forming a luxuriant mass of verdure. A strong, rapid grower. Specimens by a little training will form a little arbor or playhouse, branches and leaves forming ceiling and walls. Suitable for lawn or garden.

**English** (*Ulmus Campestris*). Forms a tall, erect tree, with slender branches and small leaves. The branches project from the tree at almost right-angles, making a very handsome appearance. When fully grown, 30 to 40 feet. Suitable for lawn and street. A native of Europe.

**FRINGE, Purple** (*Rhus colinus*). A low tree or shrub, very much admired on account of its peculiar fringe, or clusters of feathery, hair-like flowers, covering the whole surface of the bush in midsummer, giving an appearance of a cloud of smoke or mist. Also known as Smoke Tree. Hardy, and adapted to almost any soil. It grows to 15 feet high, and should be allowed room to spread. Lawn purposes.



*Magnolia acuminata.*

**FRINGE, White** (*Chionanthus Virginica*). A small native tree or shrub. Forms a low, rounded head, and blooms profusely in late May and June. Flowers are drooping racemes of pure white. Very singular in appearance, resembles bunches of white silken fringe hung gracefully from the branches. Leaves large, glossy. Lawn purposes.

**HORSE CHESTNUT** (*Esculus Hippocastanum*). A very beautiful, round-headed, regular outlined tree. Admirable for its symmetry, its profusion of dark green foliage, and large pyramidal spikes of white flowers in the spring; is very hardy, and free from disease. Foliage very profuse, making a dense shade. Makes a large-sized tree, 30 to 50 feet high. Suitable for street and lawn.

**LINDEN, American, or Basswood** (*Tilia Americana*). A rapid-growing, large, symmetrical, beautiful native tree, with very large leaves, making an open-headed or spreading growth. Foliage luxuriant. In midsummer a profusion of fragrant yellow flowers hang in large clusters. Easy to transplant, and will grow in most any soil. When fully grown, 40 to 50 feet high. Suitable for street and lawn.

**European** (*Tilia Europaea*). A small, more compact, more pyramidal grower than the American Linden. Leaves large. Flowers fragrant. Foliage dense. Growth symmetrical. When fully grown, 30 to 50 feet high. For lawn or street planting.

**MAGNOLIA acuminata** (Cucumber Magnolia). A beautiful, pyramidal-growing, symmetrical tall tree. Leaves bluish green, and 6 to 9 inches long. Flowers yellow, tinted with bluish purple. Bears fruit that resembles a cucumber when green, from which comes the name. The stateliness of form, size and richness of foliage, and, lavish yield of fragrant flowers make the Magnolia very desirable. We advise only spring planting for all Magnolias. Grows from 60 to 70 feet high. Particularly desirable for lawn, singly or in groups, and also used for avenues.

**M. Soulangeana**. Shrub-like in its growth, particularly while young, but becomes a fair-sized tree. Flowers are white and purple, cup-shaped, 3 to 5 inches in diameter, very fragrant, and appear at the first approach of warm weather in the spring, before the leaves appear. The appearance of a well-grown tree, with its abundance of flowers, fully expanded so early in the season, when there are so few blossoms, and while the tree is without leaves, is a most beautiful sight. Foliage is large, glossy. Makes a fair-sized tree. Suitable for lawn. We advise spring planting for all Magnolias.

**M. speciosa**. In growth and foliage, this tree is similar to *M. Soulangeana*. Flowers are a little smaller in size, and appear about a week later. In color are white. It is a very desirable variety. For the Lawn. We advise spring planting for all Magnolias.

**MAIDENHAIR.** See *Salisburia*.

**MAPLE, Ash-leaved (Box Elder).** (*Acer Negundo*.) A rapid grower, of irregular, spreading habit. Foliage is ash-like; seeds are Maple-like. Very hardy. Grows 50 to 60 feet high. **For street or lawn.** A native variety.

**Japanese Blood-leaved.** Few plants have given such widespread satisfaction or have been so largely planted as this charming Japanese Maple. Its adaptability to so many situations in planting arrangements, its blood-red foliage, making a striking contrast with its surroundings, and its compact, regular growth, make it the most useful of ornamental plants. It can be used as a single specimen, in groups of three or more, or in beds of large-growing shrubs. As a single specimen on small lawns it has no equal.

**Norway** (*Acer Platanoides*). Grows to a large, handsome tree, forming a spreading, rounded head. Foliage broad, shining, deep green. Shade dense. Is universally planted. The compact habit and stout, vigorous growth render it one of the most desirable trees for avenue, park or street planting. In nursery row, is inclined to grow a little rough and a little crooked, but straightens into a fine tree. When fully grown, 30 to 50 feet high. A native of Europe. **Extensively used for street, avenue and park purposes and for lawn.**

**Rock** (See Maple, Sugar).

**Silver-leaved** (*Acer Dasycarpum*). Grows rapidly to be of large size, forming an irregular, rounded head. Leaves bright green above and silvery white beneath. Tree transplants nicely, and is hardy. Useful when quick shade is desired. **Suitable for park, street and lawn.** When full grown, 50 to 60 feet high.

**Sugar or Rock** (*Acer saccharinum*). Valuable for its production of sugar sap (maple sugar), while its fine shape and foliage make it desirable as a shade and ornamental tree. Form of growth is pyramidal. Well adapted for most all soils. Grows 50 to 60 feet high. **For street or lawn planting.** A native variety.

**Weir's Cut-leaved** (*Acer Weirii laciniatum*). One of the most remarkable and beautiful trees, with cut or dissected foliage. Its growth is rapid, shoots slender and drooping, giving it a habit almost as graceful as the Cut-leaved Birch. The foliage is abundant, silvery underneath, and on the young wood especially deeply and delicately cut. The leaf-stalks are long and tinted with red on the upper surface. It ranks among the most interesting and attractive lawn trees, and may be easily adapted to small places by an occasional cutting back, which it will bear to any degree necessary, as well as a willow. **Lawn.** Grows 40 feet high.

**MOUNTAIN ASH, American** (*Sorbus Americana*). A favorite, erect-growing tree, of medium size, producing white flowers early in spring, followed by clusters of bright scarlet berries, which remain on the tree through the winter months. When fully grown, from 25 to 30 feet high. **Suitable for lawn.**

**MOUNTAIN ASH, European** (*Sorbus aucuparia*). A small, pretty tree, with white, pinnate foliage. Bears numerous clusters of bright red berries, which are very handsome and conspicuous from mid-summer until frost. When fully grown, 25 to 30 feet high. **Suitable for lawn.**

**Oak-leaved** (*Sorbus quercifolia*). A distinct and desirable tree, with compact, pyramidal head and dark lobed leaves, downy underneath; produces the same flowers and berries as the American or European Mountain Ash. Very hardy, and desirable for planting on lawns or in door yards. When fully grown, 20 to 25 feet high.

**Weeping** (*Sorbus aucuparia pendula*). Trees, when delivered, are from 5 to 8 feet high, and grow practically no taller. The branches are of a straggling, pendent character, twisting and turning in all directions. Covered during the autumn with bright red berries. **Suitable for lawn.**

**MULBERRY, Downing.** Valuable as a shade tree and for its fruit. Berries are of large size, black, excellent quality, ripening about the middle of July, and continuing to ripen for several weeks. Tree is a rapid grower, of pleasing shape, and perfectly hardy here. When fully grown, 20 to 30 feet. **Suitable for lawn.**

**New American.** Fruit large and of fine quality. Tree is a rapid grower and hardy here, bearing delicious fruit, beginning about the middle of July until autumn. Leaves are large, and of a dark, glossy green. When fully grown, attains a height of from 25 to 30 feet. **A very attractive lawn tree.**

**Teas' Weeping** (*Morus pendula*). One of the finest and most graceful weeping trees, forming an umbrella-shaped head, with slender, willowy branches drooping to the ground. The foliage is a beautiful, glossy green, handsomely cut or divided into lobes. Tree perfectly hardy, enduring the severe cold of the north and extreme heat of the south. The main growth of the branches of this class of weeping trees is downward, and the tree does not attain any additional height of any amount after it is set out. Trees are in the neighborhood of 5 to 8 feet high when delivered. **Suitable for lawn.**

**POPLAR, Carolina** (*Populus Caroliniana*). Well known for its erect, rapid growth and pyramidal-shaped, commanding form. Very desirable in large grounds, or in streets or roads. Leaves are large, glossy green. A valuable tree where one of quick growth is particularly desired. **Suitable for street or lawn.** When fully grown, 50 to 60 feet high.

**Lombardy** (*Populus fastigiata*). The tree is remarkable for its very erect, tall, spire-like form, breaking the ordinary and monotonous outline of most other trees. It is an extremely rapid grower. **Suitable for street or lawn.** Attains a height of from 75 to 100 feet or more.



## ORNAMENTAL TREES, continued.

**SALISBURIA** *Adiantifolia* (Maidenhair).

An elegant tree of singular habit, combining characteristics of the conifer and deciduous tree, with large branches, spreading horizontally, irregular lengths. Leaves resembling the Maidenhair fern. Fruit and seeds, or nuts, are edible. Origin, Japan. **Desirable for planting in lawn or door-yard.** A medium-sized tree.

**SMOKE TREE.** See Fringe, Purple.

**THORN, Paul's** (*Crataegus Paulii*). Dense, low-growing tree, occupying comparatively little space, and well adapted to beautify small grounds, or for use where a low screen is wanted. Flowers a bright carmine-red, making a noticeable and handsome, and one of the most desirable, flowering trees. Foliage attractive. Tree hardy. Desirable singly or when planted in groups or masses. Planted with T. White, makes a rich appearance. **Suitable for lawn.** Grows 12 to 20 feet high.

**White** (*Crataegus alba*). A highly ornamental variety on account of its foliage and its profusion of small, pure white, double flowers. Planted with the Paul's, it makes a handsome effect. **Suitable for lawns.** Grows 12 to 18 feet high.

**TULIP TREE** (*Liriodendron tulipifera*).

One of the largest and most stately native forest trees. The trunk is usually perfectly straight and cylindrical for a great height. A very rapid grower. Bears a profusion of large, tulip-shaped flowers. Leaves large, glossy, light green, shaped like a violin. Very desirable for street or lawn, and where a rapid growth is desired. Transplants to best advantage when not too old or too tall. When fully grown, 50 to 60 feet high.

**WALNUT, Black** (*Juglans nigra*).

A native species, of very great size and majestic habit. The bark is very dark, rough and deeply furrowed. The foliage is very beautiful, each leaf being composed of 13 to 17 leaflets. The nut is round. **Suitable for street, lawn or grove.** Grows 60 to 80 feet high.

**Butternut** (*Juglans cinerea*). A native tree of medium size, with a spreading head. Bark is grayish. Nut oblong and rough. **Suitable for street, lawn or grove.** Grows 40 to 60 feet high.

**English** (*Juglans regia*). Also called Madeira Nut. A fine, lofty-growing tree, with a spreading head. Bears crops of large, excellent nuts. Nut oval, and very nice. **Suitable for street, lawn and grove.** Grows 40 to 60 feet high.

**WILLOW, Kilmarnock** (*Salix caprea pendula*). When delivered, are about 5 to 8 feet high, and the trunk practically grows no taller; the growth of the branches being curved downward, form an open umbrella-shaped top, with the branches drooping gracefully to the ground. Leaves are a glossy green. Tree is hardy and vigorous, and thrives in most all soils. Requires but little trimming; only enough to preserve the desirable rounded head and keep drooping branches the same length. Well suited for cemetery lots or other small enclosures, or for lawns, and very desirable and useful where a low screen is wanted.

**New American Weeping** (*Salix purpurea*). A dwarf species of Willow. When delivered, is about 5 to 8 feet high, and the trunk of the tree grows practically no higher. The growth of the branches is outward and downward. Hardy, and very pleasing. **Suitable for lawn.** Also known as the Fountain Willow. Origin, Europe.



Teas' Weeping Mulberry.

## Evergreen Trees and Hedge Plants.

Evergreens are difficult to transplant. They should never be set in the fall, except in the South, and great care must be taken to avoid all exposure to sun or wind. It is advisable to prepare the places for setting (or if a hedge, the strip where the hedge is to stand) before the Evergreens are unpacked or brought into the sun. In setting a hedge, do not strew the plants along the line where the hedge is to stand, as is often done, for this exposure to wind and sun is almost fatal. But few plants at a time should be carried into the sun, and these properly set as fast as possible.

### **ARBORVITÆ, American** (*Thuja occidentalis*).

A well-known native variety, commonly known as the White Cedar. Forms an upright, conical tree, of only medium size. One of the finest Evergreens for screens. Grows rapidly, and by easy management it soon forms a most beautiful hedge, very dense and perfectly impervious to the sight. It is not adapted to turn stock, but forms a most desirable and ornamental screen to divide the lawn from the other parts of the grounds, or for similar purposes. Holds its green color throughout the entire year. It is often planted individually in the lawn. Hardy. For hedge purposes, only small-sized plants should be used, as they withstand the shock of transplanting better than older plants. For hedge, set plants about 2 feet apart, trimming in April or May, just before the new growth starts. We recommend moderate trimming or shearing each season, rather than to let it go several years and then trim excessively.

**CEDAR.** See Arborvitæ, American.

### **JUNIPER, Irish** (*Juniperus Hibernica*).

A very pretty tree or shrub, forming a neat, tapering, almost cylindrical column of dark, deep green, right from the ground up, as branches start close to the ground. Remains green all the year. Very hardy. Desirable for planting on lawns or in cemetery lots, where larger evergreens are not admissible. Never grows very tall,

and never becomes broad, as the branches grow almost straight up, parallel with the main body.

**PINE, Austrian, or Black** (*Pinus Austriaca*). From Central Europe, where it grows over 100 feet high. Remarkably robust, with long, stiff leaves and deep green foliage. Hardy everywhere. Valuable for planting as windbreaks and screens, or for the lawn.

### **SPRUCE, Colorado Blue** (*Abies pungens*).

Hardy. Foliage of a rich blue color, of a fine, compact habit, and of very symmetrical growth, becoming a spreading, stately tree. Distinct from other lawn adornments on account of its silvery blue foliage.

**Norway** (*Abies excelsa*). Dense in structure, and when left natural, will branch close to the ground. Of very rapid growth. Has a gracefully drooping habit when of some size. Shape of the tree is pyramidal. Perfectly hardy. Will bear shearing or cutting well, and hence is well adapted for planting in hedges or screens. Holds its green color throughout the entire year. We recommend moderate trimming or shearing each season, rather than to let it go several years and then trim excessively. For hedge, set plants about 2 feet apart, trimming in April or May, just before the new growth starts. The Norway Spruce is used for "Christmas trees" probably more extensively than any other Evergreen.

## Ornamental Shrubs.

These are much smaller than trees, and occupy less space. They are very valuable planted as single specimens in the door yard, or in groups or masses, and a little planning in setting the kinds in the group will readily bring out the greatest individual beauty of the different kinds. By the proper use of the pruning knife or shears, the plants may be kept in handsome shape and proper size.

### **Althæa, or Rose of Sharon.**

(*HIBISCUS*.)

Fine, hardy, free-growing and flowering shrubs of the easiest cultivation. Very desirable on account of blooming in August and September, when scarcely any other tree or shrub is in blossom. The flowers are large, and bloom freely, covering the shrub. The beautiful colors of the different varieties contrast admirably with each other. Altheas can be trimmed and grown tree shape, attaining from 6 to 10 feet in height, making a pitey and compact little flowering tree; or

they can be grown in bush form, making a large shrub.

**Double Blue, Double White, Double Purple** (*Purpurea fl. pl.*), **Double Red** (*Rubra fl. pl.*). These varieties are distinguished by the color of the blossoms, each being the same in habit and foliage. Order by color.

**Variegated-leaved** (*fl. pl., fol. var.*). A conspicuous variety, with leaves distinctly marked with light yellow, and having double purple flowers; showy and desirable. One of the finest variegated-leaved shrubs.



*Deutzia gracilis.***Azaleas, Hardy.**

**Ghent Hybrid Azaleas** combine a great variety of colors, and possess a delightful perfume. They blossom during the months of May and June, and are among the best plants for decorating lawns and grounds.

**Mollis.** A splendid hardy species from Japan, and one of the most valuable flowering shrubs. The flowers combine a large variety of colors, and are borne in large clusters, in such profusion as to entirely hide the plant. Very desirable ornamental shrub for the lawn, and excellent for the front of borders and clumps of taller-growing shrubs.

**Barberry, Purple-leaved.**

(*Berberis purpurea*.)

One of the smallest purple-leaved shrubs, and one of the handsomest, growing from 3 to 5 feet high, with violet-purple leaves. Its showy golden yellow flowers in May or June are succeeded by violet-purple fruits in autumn and early winter. The leaves retain their dark purple color finely through the season, and it is especially desirable to plant in the foreground of golden or light green-leaved trees or shrubs. Can be brought into bushy form by a little pruning when young. Desirable planted singly or in groups.

**Calycanthus, or Sweet-scented Shrub.**

(Also called Strawberry Tree.)

A very hardy, vigorous-growing shrub, with brown or chocolate colored, very sweet scented flowers. Blossoms in June and at intervals thereafter; the flowers are produced from the axils of the leaves all along the branches; that is, a branch has flowers along its entire length in the same position as its leaves. The wood is fragrant. Calycanthus grows well in most all kinds of soil, and attains a height of 5 to 6 feet. Leaves handsome in color, soft, downy beneath.

**Deutzia.**

The Deutzias are from Japan. Their hardihood, fine habit, luxuriant foliage and profusion of attractive flowers place them among the most popular of our flowering shrubs. Their flowers are produced the latter part of June, in racemes 4 to 6 inches long.

**Crenata.** A tall, upright-growing shrub, with dark green leaves and pendent racemes of pink or white flowers. It tends to grow with few lower branches, and some of the inside canes need cutting out occasionally to make it branch. Flowers very double, white, tinged with rose.

**Gracilis.** One of the most beautiful small shrubs, covered with a profusion of spikes of pure white flowers in June. This is well adapted to planting in cemetery lots or small door-yards. Fine for pot culture, as it flowers freely in low temperature during the winter.

**Pride of Rochester.** Flowers large, double white, back of petals slightly tinged with rose; superior to others in size of flowers, profusion of bloom and vigorous habit. Blooms a week earlier than *Deutzia gracilis*.

**Dogwood, Variegated.**

(*Cornus Siberica variegata*.)

Beautiful shrub of large size. The branches are bright red, and with the snow for background are especially valuable for winter effect. The leaves are very beautifully variegated with yellow, white, and green and makes a pleasant contrast with dark green or purple leaved shrubs. One of the prettiest variegated shrubs in cultivation, and worthy of more general planting.

**FRINGE.** See under Ornamental Trees.

## Honeysuckle, Upright.

(*Lonicera*.)

Makes a very large, upright shrub, with flowers that are followed with berries. Blooms in the spring from the old wood.

**Red Tartarian** (*Tatarica rubra*). Beautiful flowering shrub, blossoming in June. Bright reddish flowers, followed by bright scarlet berries, that contrast beautifully with the foliage.

**White Tartarian** (*Tatarica alba*). Forms a high bush, with creamy white, fragrant flowers, followed by berries. Blooms in May and June.

For Honeysuckle Vines, see under Hardy Climbing Vines.

## Hydrangea.

**Paniculata grandiflora**. Strictly hardy. A fine shrub, attaining a height of 6 to 10 feet. Flowers, produced in great panicles, are at first pure white, then changing to pink. Begins to bloom early in August, continuing several weeks. Foliage is handsome in shape and of a desirable green color. It is valuable for planting either singly or in beds. **No one makes a mistake in planting this variety; it is and should be extensively planted.** To get the best results in growing this shrub, the new growth should be cut back in the fall, or before growth begins in the spring. This *Hydrangea* can be grown in the form of a small tree by trimming off the lower branches, and it is very attractive and desirable in this form. "Decidedly the finest flowering shrub of recent introduction."

**Otaksa**. Beautiful, deep green foliage. The plant produces immense trusses of rose-colored flowers in profusion in July. Free bloomer. Requires protection in winter; should be grown in pots or boxes and wintered in the cellar, and in summer placed on stoops or along walks under the trees.

## Lilac (*Syringa*).

A class of medium-to large-growing shrubs, with bright, attractive, glossy green foliage and a profusion of various colored clusters of flowers, delightfully fragrant. They flower in May and June.

**Dr. Breitschneider**. A new upright-growing sort, forming a compact, tree-like shrub, and flowering at the end of almost every shoot. The flowers are a dark lavender, and are borne in such profusion that the plants, when in bloom, are a magnificent sight. Thick, leathery leaves, much like those of the Japan Snowball. A very distinct and handsome sort.

**Japonica** (Japanese Tree Lilac). The largest of the Lilacs, making a small tree. Leaves are large, dark green, and the very large panicles of white flowers are produced in June; hardy and desirable.

**Josikea**. Purple flowers in June, after other Lilacs have flowered; broad, dark, shining leaves; tree-like habit; very late-blooming.

**Lemoine's Double**. Reddish purple, double flowers.

**Marie Legraye**. Pure white, splendid, large trusses; strong, symmetrical grower; free-blooming. A favorite variety for forcing.

**Michael Buchner**. Pale lilac, double flowers, borne in immense panicles. A very handsome and valuable variety.

**Persian Lilac**. This Lilac is of medium size, with small, bright green leaves and large compound panicles of rather brighter flowers than the old-fashioned Lilac. The bush is of graceful outline. There are two kinds, one with red flowers, the other with white flowers. In ordering, specify as **Lilac**, **Persian Red**; or, **Lilac**, **Persian White**.

**MAPLE, Japan**. See description under Maple, in Ornamental Trees.

**PEONIES**. See under Bulbs and Perennial Herbaceous Plants.



Bunches of Lilacs.





Japan Quince.

### Quince, Japan (*Cydonia Japonica*).

There are several flowering varieties, differing only in the color of the flowers. Although of straggling growth, they can be pruned to desirable shapes without injury. Their large, brilliant blossoms appear in great profusion early in the spring, before the leaves unfold, and produce a very brilliant and pleasing effect. Foliage bright green and glossy all through the summer. Desirable planted alone or in groups. It is sufficiently thorny and strong to make a valuable hedge, and its beautiful flowers make it very desirable for that purpose.

### Rhododendron.

An evergreen shrub. The Rhododendron has been well known in America among a few for half a century, but to many it is comparatively unknown. For success with Rhododendrons, a light garden soil is the best; if the soil is clay, let it be lightened with sand, leaf-mold, rotted sod or surface soil which has been heavily manured the year before, are all beneficial; mulching is useful, but it should not be allowed to remain during the growing season from April 15 to July 15, as the soil needs air and sun for at least three months of the year. Some liquid or surface manure can be profitably applied during growth, and as they are heavy feeders they should not be planted too close, for they need abundant room for their roots, when properly supplied with liquid or surface manure. It is a great mistake to plant

them under trees, as they will not flower as freely when thus placed as when planted in the sun.

The broad evergreen leaf, with its glossy richness, a handsome green through the entire winter, would alone entitle the Rhododendron to the first rank, but when it is crowned in June with many clusters of flowers, each cluster large enough for a bouquet, and each variety having its own color—white, purple, pink, red and crimson—the word superb describes its appearance. It can be planted singly upon the lawn, or in a city garden, and is also very effective in a mass of one or two dozen. We can supply the above colors. Order by colors.

### Snowball (*Viburnum*).

**Common** (*V. sterilis*). Very beautiful and popular; flowers snowy white, borne in large balls, flowering the latter part of May. Makes a large-sized shrub.

**Japan** (*V. plicatum*). This variety is a valuable addition to the list of hardy shrubs, and surpasses the common Snowball in many respects. It forms an erect, compact bush 4-6 ft. high, and blossoms early in June, when the plants are covered from the ground to the tops of the branches with balls of flowers as white as snow, clustered one against the other in dense masses. Leaves are of a bright green, with a beautifully plicated or plaited surface.

**SMOKE TREE.** See Fringe, Purple, under Ornamental Trees.

### Spiraeas.

The blooming period of the Spiraeas extends from spring to late summer, some of them flowering at a time when there is but little bloom.

**Aurea, or Golden** (*Opulifolia aurea*). A striking variety of decided beauty, and one of the most effective shrubs for a lawn. Foliage green, bordered with a rich, golden yellow; very distinct and beautiful. In June the branches are covered with a double white flower.

**Callosa alba.** A dwarf variety of the above, having pure white flowers in the greatest profusion. Very desirable on account of its dwarf habit and free-flowering.

**Prunifolia** (Bridal Wreath). One of the oldest and most hardy of the Spiraeas. Produces long, slender branches, that in the spring are covered with beautiful white, double flowers; these branches may be bent around so as to form a perfect wreath, whence the name. It has the habit of producing very few lateral branches, so that severe pruning should be given to a few of the strongest canes after blooming in the spring.

**Van Houtte** (*Van Houttei*). Surpassing all other Spiraeas in the superb beauty and gracefulness of its blossoms. The plant is dwarf in habit, with graceful, pendulous branches which, when in bloom early in June, are weighed down with pure white blossoms, the plant being covered with a mass of flowers.

## Syringa, or Mock Orange.

(*PHILADELPHUS*).

Of vigorous habit; very hardy, with large, handsome foliage and beautiful white flowers, produced in the greatest profusion in the blossoming season. It merits a prominent place in all collections of shrubbery. It is called the Mock Orange because its flowers somewhat resemble orange blossoms, and are equally fragrant, though with not as delicate a perfume. Most of the varieties, except those of dwarf habit, form large-sized shrubs, 12 to 15 feet high. They can, of course, be kept smaller by pruning. The dwarf sorts do not yield many flowers, but are very pretty, compact plants, and are very useful where small shrubs are desired. All of the varieties flower in June, after the Weigela. By planting the late-flowering sorts, the season may be considerably extended.

**Double-flowering** (*P. flore pleno*). A variety with partially double, fragrant flowers.

**Garland** (*P. coronarius*). A well-known shrub, with pure white, highly scented flowers. One of the first to flower.

**Cold-leaf** (*P. aurea*). A dwarf variety. Flowers abundantly. A handsomely shaped plant, of medium size, with bright, golden-yellow foliage. Will be found valuable for creating pleasing and striking contrasts with shrubs of other colored foliage.

## Tree Paeonies.

(*Paeonia Moutan*.)

Low, handsome flowering shrubs, attaining from 3 to 4 feet in height. The flowers appear in May, and are of gorgeous colors, very numerous, and enormous in size, often measuring 6 to 9 inches across. Very effective among other shrubs, or for borders or margins. Although hardy, the plants are greatly improved by slight protection in winter. A native of China.

**Crimson, Red, Pink.** Distinguished by the color of the flower, each being the same in habit and foliage.

**Banksii.** Very large, fragrant flower; rosy blush, with purple center.

**VIBURNUM plicatum.** See Snowball, Japan.

## Weigela.

Hardy, easily grown, and great bloomers. Of erect growth while young, but gradually spreading and drooping as they acquire age. They produce, in June and July, superb,

large, trumpet-shaped flowers, of all shades and colors from pure white to red. In borders and groups of trees they are very effective, and for margin work, the variegated-leaved varieties are admirably suited, their gay-colored foliage contrasting finely with the green of other shrubs. The Weigela flower in June, after the Lilacs are gone, keeping up a fine show of color in the shrubbery for a month or two longer. Some of the old wood should be cut out each year, after flowering, which will result in the growth of young, vigorous shoots, that will produce an abundance of large flowers.

**Candida.** A strong-growing new variety, bearing pure white flowers in great profusion. One of the best.

**Hortensis nivea.** Flowers pure white, retaining their color, and being clear enough for the choicest bouquets; foliage large; a profuse bloomer; of dwarf spreading habit. 3 to 4 feet.

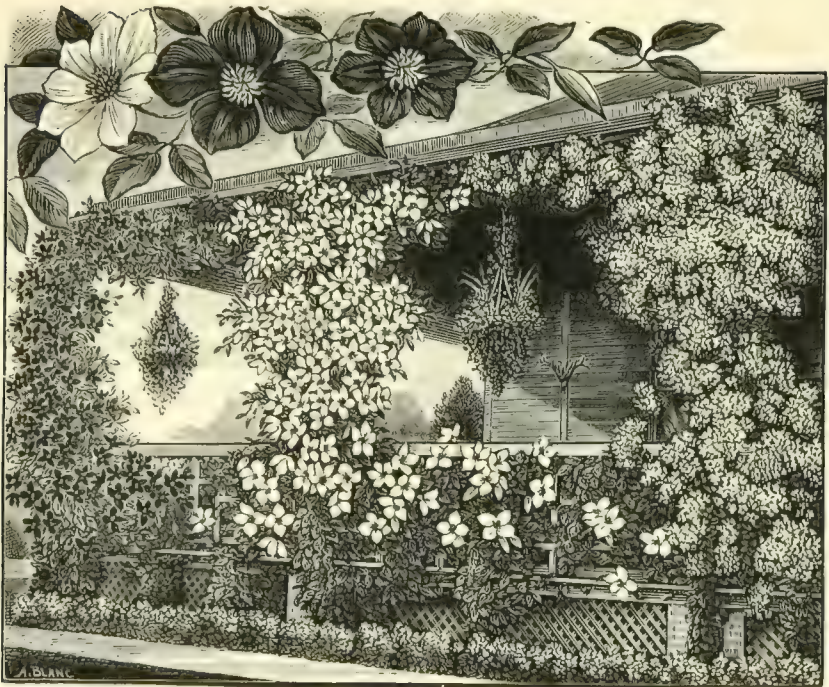
**Rosea.** An elegant shrub, with fine rose-colored flowers. Introduced from China by Mr. Fortune, and considered one of the finest plants he has discovered. Quite hardy; of erect, compact growth. Blossoms in June.

**Variegated.** The leaves of this variety are beautifully marked with white, yellow and light green. Flowers light rose colored.



Weigela Candida.



*Clematis Jackmanni.**Clematis Henryi.**Clematis paniculata.*

## Hardy Climbing Vines and Creepers.

### *Ampelopsis Veitchii.*

(JAPAN, or BOSTON IVY.)

This is one of the most popular of all the vines. It is neat in character; the leaves, which resemble the English Ivy in shape, overlap one another closely, forming a dense sheet of shining green, changing in the fall to the most vivid scarlet, purple and gold. It is a self-clinger, and clings tightly to wood, brick or stone, and does not run across windows or openings. Planted and trained to grow on and cover the stone foundation walls of a frame house, it adds a desirable attraction to the place. No buildings are considered too handsome to cover with this plant, and the most unsightly ones are made picturesque by its use. Should properly have protection the first winter, but after it becomes established is perfectly hardy and grows rapidly. The many handsome residences, public buildings and churches covered wholly or in part by this beautiful and appropriate vine attest to its great worth. Does not require support, being strictly a self-clinger. We highly recommend *Ampelopsis Veitchii*. When planted close to a foundation wall, a trying place for any stock, the ground should be frequently loosened, as in such position the surface of the ground is very apt to bake over quite hard. Origin, Japan.

### *Clematis.*

As a climber for the veranda, a screen for fences, for training on walls or arbors, in masses on rockwork, or cultivation in pots, the *Clematis* has no rival among strong-growing, blossoming plants. Blooming throughout the summer, nothing can excel the surpassing beauty of the many colors of the several varieties. The *Clematis* should be grown in rich, deep, sandy loam, and be well mulched with rotted manure in winter. The richest sheets of bloom and largest flowers are obtained where it has partial shade. When planted close to a foundation wall, a trying place for any stock, the ground should be frequently loosened, as in such position the surface of the ground is very apt to bake over quite hard. All of the varieties offered are entirely hardy, most of them are lavish bloomers, and the majority blossom the first season after transplanting.

**Coccinea.** An American variety, and unlike any other *Clematis*. The vines attain the height of from 8 to 12 feet, beginning to flower in June and continuing until frost. The flowers are bell-shaped; a rich, deep coral scarlet, and last a long time when cut. Early summer bloomer.

**Flammula** (European Sweet). Though the flowers of this variety are individually small, they are very abundant in the late

summer and autumn months. Highly prized for their perfume, which resembles that of the Hawthorn, but is much sweeter.

**Henryi.** Of robust habit and a very fine bloomer. Flowers large, of a beautiful creamy white, consisting generally of from 6 to 8 spreading sepals. Is a remarkably free and continuous bloomer, beginning with the earliest and holding on with the latest. One of the finest white varieties. June to Oct.

**Jackmanni.** This variety bears a profusion of large sized, intense violet purple flowers, 6 inches across, richly veined and shaded with reddish purple. Is a rapid grower; an early and abundant bloomer; perfectly hardy and adapted to all kinds of culture; is equally fine, either as a climbing or trailing plant, and is well adapted for covering up unsightly objects. Planted out in a border or flower bed, it will produce the finest effect and give a continuous bloom through a long season, year after year.

**Madame Edouard Andre.** New Red Clematis. An entirely distinct and most novel variety, and the nearest approach to a bright red ever sent out. The plant is a strong, vigorous grower, being a hybrid of the popular Clematis Jackmanni, which it resembles in freedom of bloom, strong, vigorous growth, shape and size of flower, but is a distinct, carmine-red color of a most pleasing shade, entirely different from other varieties.

**Mrs. George Jackmann.** An English variety; color white; flowers single, large, some being 6 inches in diameter; strong grower; hardy.

**Paniculata.** This valuable white Clematis, a native of Japan, has, after a thorough trial of several years, proved entirely hardy. The deep, clear green foliage is unusually broad and healthy, and remarkably free from all insect enemies. The flowers are pure white, often slightly tinged with cream, from three-quarters of an inch to an inch in diameter, star-shaped, and with a most pleasing and penetrating fragrance. They are borne in heads on stiff stems 4 to 6 inches long, from the axils of the leaves. The fragrance is remarkable in its intensity, and is noticeable quite a distance. For any situation where a rapid-growing climber is needed, this will be found a very valuable plant. The late season of blooming is a strong point, as most other climbers have passed their flowering stage by the middle of August, when this is just coming to perfection, and continues blooming nearly a month.

**Ramona.** A new American seedling originated in Newark, N. Y. A very strong, rampant grower; very hardy and a perpetual bloomer. The color of the flower is a very deep sky-blue, very distinct and attractive; flowers very large, many running as large as 18 inches in circumference. Peter Henderson says: "It has the largest and most attractive flowers of any Clematis I have ever seen."

**White Perpetual.** Where a white-flowering variety is wanted, and the customer prefers to have us select the variety best adapted to his section, the order can be given under this name.

For Perennial Herbaceous Clematis, see under Bulbs and Perennial Herbaceous Plants.

## Honeysuckle.

**Hall's Japan (*Lonicera Halliana*).** This vine has the advantage that it will "grow" under almost any conditions. The flowers are yellow, changing to a pure white, and are fragrant and abundant from June to September. It should be trained to wire netting or some other support, for if allowed to lie on the ground every branch will take root, and it becomes difficult to eradicate except by constant pulling and hoeing up of all suckers not desired. For a "quick grower," plant Hall's Japan Honeysuckle. With a slight protection of leaves, straw or pine boughs, or by the vines lying on the ground, the leaves remain perfectly green all winter, but in full exposure they turn brown during the latter part of winter, and are anything but ornamental. This is a valuable shrub for covering dry or stook embankments, which are difficult to cover with grass.

**Monthly Fragrant (*L. Belgica*).** Flowers red and pale yellow; sweet scented; blooms through the summer.

**Scarlet Trumpet, Monthly (*L. semper-virens*).** Flowers deep red, trumpet-shaped. Flowers all summer. A native climber, and appropriate for trellises and rock-work.

For Honeysuckle, Upright Shrub, see under Ornamental Shrubs.



Sprig of Honeysuckle.

## Ivy (*HEDERA*).

The evergreen sorts of Ivy often suffer in winter, if exposed to the sun, and should be planted on the north side of a building.

**English or Irish.** Old, well known sorts, used in covering the north side of buildings; leaves deep green.

**Variegated.** (*Rombera variegata*). Leaves small and pretty; variegated.

## Wistaria.

**Chinese Purple (*Sinensis purpurea*).** One of the most elegant climbing vines known, and a very rapid grower after it gets thoroughly established, sometimes making twenty feet of wood in a single season. Bears long clusters of pale blue flowers in May and June, and also in September. Extremely hardy. Attains a larger size than any other climber.

**Chinese White (*Sinensis alba*).** Differs from above only in the color of its flowers, which are smaller and pure white, forming a striking contrast.



## Bulbs and Perennial Herbaceous Plants.

Perennial herbaceous plants and bulbs, which die down to or near the ground every fall start up again from the roots in the spring.

### **Anemone** (WINDFLOWER).

**Japonica** (Japanese). From Japan. Grows 2 feet high. Of very free, vigorous habit of growth, and in autumn produces a great and continuous abundance of bright red flowers until cut down by frost.

**Alba** (Honorine Jobert). Pure white flowers of the greatest beauty. Choice for cutting purposes.

### **Anthemis** (*Chamonile tinctoria*).

(HARDY GOLDEN MARGUERITE.)

From Europe. Grows 2 feet high. A plant of dense, bushy habit. Hardy, thriving in any free soil, and producing the greatest abundance of showy, deep yellow, aster-like flowers from early July until hard frost. For cutting purposes, no yellow flower can rival this. Will succeed in even the poorest soils.

### **Aquilegia** (COLUMBINE).

**Chrysantha** (Golden-spurred Columbine). From Colorado. Grows 3 feet high. Bright golden yellow flowers, with long, thread-like spurs; fragrant. One of the choicest. Elegant border plant.

**Cœrulea** (Rocky Mountain Columbine). From Rocky Mountains 1 foot high. Very large flowers, often 4 inches across, with deep blue sepals and pure white petals, and long, recurved spurs. A grand species in well-drained loam.

### **Arundo Donax** (REED GRASS).

From Spain. Grows to feet high. Towering, straight stems of the deepest green, clasped at regular intervals with broad,



Italian Canna.

pointed foliage. One of the noblest of the hardy ornamental grasses, thriving in rich soil, in well-drained situations, where, with a good mulch of leaves in winter, they will prove quite hardy. Suitable for single lawn planting, or can also be used with great effect with either hardy grasses, or in the border, or in connection with shrubs.

### **Astilbe Japonica** (FALSE GOAT'S BEARD).

(*Spiraea Japonica*, or *Hoteia Japonica*.)

From Japan. Grows 2 feet high. Handsome dark green foliage and showy spikes of pure white flowers; of easiest culture in any good garden soil. Its compact habit of growth, neat foliage and charming flowers render it especially valuable for use in borders. Much used for winter forcing.

### **Cannas, French.**

**Beaute de Poitevine**. An ideal dwarf variety. Foliage brilliant, shining green. Flowers good size, growing in large trusses of splendid crimson-scarlet. This variety makes a beautiful dwarf bed, and stands the heat and drought better than any other.

**Rose Unique**. A charming variety of the everblooming French Cannas. Plants vigorous in growth, with lanceolate green leaves and beautiful, rose-colored flowers.

### **Cannas, Italian Orchid-flowered.**

A distinct race of Cannas. The flowers are very large, often 6 to 8 inches across, and gorgeous in color; are appropriately called Orchid-flowered. They have less substance and are thinner-petaled than the French varieties, and are exceedingly free bloomers.

**Austria**. Immense, canary-yellow flowers, with pale, brownish red spots. Giant in growth; foliage large and heavy. Young plants set out in June form dense clumps of 20 to 25 stems 6 feet high, each surmounted with a spike of gorgeous golden flowers; last till frost.

**Italia**. These flowers, on massive stems about 16 inches long, are gorgeous in color, being a rich, golden yellow, with patches of brilliant red spots on the upper petals. The leaves are a rich, deep green, bordered white. A grand variety; stately in growth, often 6 feet in height, and with brilliant, everblooming flowers.

### **Clematis** (VIRGIN'S BOWER).

(*Ranunculaceæ*.)

The perennial herbaceous Clematis are a most valuable class, giving most prolific flower results, and all of easiest culture in common garden soil. The sorts given on next page only include the herbaceous sorts; for the hybrid varieties, and other sorts with

woody stems, see Hardy Climbing Vines. The bushy forms are especially choice for the flower border. No class of plants better repays rich culture and care than these

**Davidiana.** From China. Grows 3 feet high. Dense, bushy habit of growth. Handsome, tubular, porcelain-blue flowers in compact clusters at the axils of the leaves. The flowers are slightly fragrant, and the foliage has a distinct odor of new-mown hay after the first frost.

**Graveolens.** From China. Grows 15 feet high. Lemon-yellow flowers about 1½ inches across. A unique color in the class

### **Dicentra spectabilis.**

(DIELYTRA; SEAL FLOWER.)

From Siberia. Grows 3 feet high. Well-known, desirable species, with long racemes of showy, heart-shaped red and white flowers. An ornamental class of border plants; of easiest culture, in moderately rich soil. The foliage alone is very ornamental, while the flowers are striking in form and color. A favorite in every garden.

### **Dictamnus (GAS PLANT).**

Elegant, strong-growing, symmetrical, handsome-foliaged plants, surmounted by long spikes of peculiarly fragrant, showy flowers. Suited to any good, loamy garden soil. The flowers give off a pungent gas, with an odor of lemon peel, which ignites with a flash when touched with a match on hot, sultry evenings; hence its common name, Gas Plant.

**Fraxinella.** From Germany. Grows 3 feet high. June. Showy purple flowers, penciled with deeper lines.

**Fraxinella alba.** Same as above, but with pure white flowers.

### **Eulalia Japonica, var. Zebrina.**

(ZEBRA GRASS; GRAMINEÆ.)

From Japan. Grows 4 feet high. A most remarkable and handsome variegated form, with the golden variegation in horizontal bands across the leaf at regular intervals. Of easiest culture in ordinary garden soil. For the flower border, or for grouping on the lawn, they are very valuable. Unique and very effective.

### **Gladiolus.**

The Gladiolus is one of the very hand-somest of all the outdoor flowering bulbous plants. The plants give wonderful returns for but little outlay in time and care, and are very satisfactory for cut-flowers for the house, as all the small undeveloped buds will develop to the tip of the spike in water. They present the greatest variety of shades and coloring, from pure white with the slightest touch of pink through all the shades of yellow and pink to the deepest scarlet. They require nothing more than ordinary garden soil to do their best. The bulbs must be dug up in the fall, and may be planted from the time the ground is in shape to be worked in the spring, till July, and will begin to blossom in about six weeks.

**Lemoine Hybrids.** Rather early, very graceful and beautiful; inclined to the more delicate shadings, with beautiful soft contrasts.

**Crawford's Mixtures.** Contain all kinds and all shades, from pure white to the deepest scarlet.

### **Hollyhocks.**

These handsome, showy plants are at present great favorites. They are old inhabitants of our gardens, but are now so improved in doubleness and enlarged in size, as to be revelations of gorgeous beauty to those who have not seen these improved sorts. As a background there is nothing better, or for groups on the lawn or among shrubbery, they are invaluable. Our stock consists of fine, field-grown plants, raised from the choicest seeds. Flowers large and double, as handsome in form as a camellia, and of beautiful shades of color.



Japan Iris.

### **Iris.**

**German.** Under this head are included the varieties of several species of Iris, but all are distinguished by their broad leaves, and resemble each other in the shape of their flowers, and for this reason are known under one head. All of easiest culture in ordinary garden soils, preferring a rich loam. No garden is complete without the German Iris. We sell them in assorted colors.

**Japan.** The plants we quote are recent importations from Japan, and are extra choice and rare. This is the latest and largest-flowering of all the Iris family. Some specimens in the nursery measured over 9 inches across the petals. They are entirely hardy, and require no attention after being planted in good soil. They show the most charming combinations of colors; some are pure white, others crimson, rose, lavender, lilac, blue, and others are mottled.





Rudbeckia, Golden Glow.

### Lilies.

**Auratum** (The Golden-rayed Lily of Japan). Pure white, with crimson spots, while through the center of each petal runs a clear golden band, the flowers nearly a foot across. Blossoms from June to October.

**Speciosum rubrum.** Rose color, spotted with crimson.

### Paeonies, Herbaceous.

It is surprising that these elegant flowering plants are no more generally cultivated.



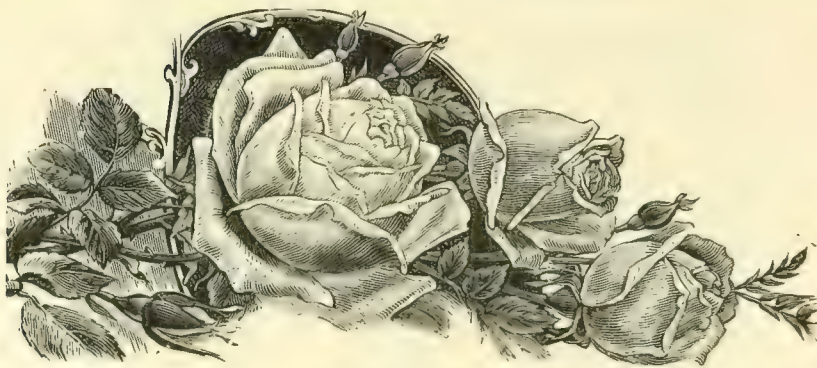
Paeonia.

Most people seem to have lost sight of the many beautiful varieties introduced within the last few years. They are absolutely hardy everywhere, have no insect enemies, and always live and grow when properly planted, increasing in beauty from year to year. They bloom in June and July, and may be planted singly or in groups. The foliage is rich and glossy, and of a beautiful deep green color, thus making the plants very ornamental when out of blossom. The plants attain a height of about 2 feet. We offer the following colors: **Pink, Red, Scarlet, Crimson, White.** These varieties are distinguished by the color of the flower. Order by color.

### Rudbeckia, Golden Glow.

(CONE FLOWER.)

We call attention to this notable novelty, and offer it as the finest hardy herbaceous border plant introduced for many years. It is of easy growth, and is giving complete satisfaction. A plant this season on our grounds, the second year from planting, had 1,380 flowers and buds on it, some of the flowers being  $3\frac{1}{2}$  inches in diameter. It made a great show, and but few plants can vie with it in attractiveness. There is no floral novelty before the public to be compared to it for effectiveness and worth. We recommend it.



## ROSES.

The beauty of the Rose appeals to more people than any other flower. It succeeds best in a deep, rich soil, rather moist, and of somewhat clayey nature. **There are more failures in growing the Rose from not making the soil rich enough than from any other cause.** Perhaps the best line of treatment is to dig 18 or 20 inches deep, working in fine, rotten cow manure and leaf-mold to the full depth, and every fall banking rich stable manure up against each plant for protection. In the spring this should be spread over the bed and spaded in.

**Winter protection.**—Most Roses will be much benefited by tying the bush up with coarse rye straw. Pine boughs or leaves, packed in about the plants, are a great protection.

Our hardy Roses (the "H. P.," the "C.," and the "M.") are strong plants, grown out of doors, well rooted, and every way desirable. They have usually bloomed in the nursery row before being sent out, and are in every respect much better and stronger plants than the ones that are advertised as being so cheap, and are sent out by mail, those being small, tender shoots, started in a greenhouse, and, after a few weeks, sent out before they have established growth and constitution enough to stand the shock of transplanting. While for plants of this older age, grown and cultivated outdoors in the nursery row, we have to charge our price, they are more than worth the difference, and will give much better results and satisfaction.

**H. P.**—In our list the term (H. P.) denotes the hardy and popular classes mainly, called **Hybrid Perpetuals**. They thrive best in a rich soil, and usually bloom profusely during June, and occasionally during the summer and autumn. In pruning, the work may be done in the fall or in March, the latter time being generally preferred. The bushes should be so pruned as to obtain a limited number of as strong canes as possible, as, the stronger the canes, the larger will be the flowers. Weak shoots should be entirely removed or severely cut back. The two hardy yellow Roses, Harrison's and Persian, are quite similar to the H. P. class, in their strong hardy growth. All suitable for the garden or lawn.

**T.**—The **tender** list, marked (T.), includes a variety of classes, which require protection during the winter. In most sections plenty of leaves, with evergreen boughs on top, are sufficient. Appropriate for beds in the lawn and for pot-culture in the house. They are profuse bloomers.

**C.**—The **Climbing** Roses are hardy, and should be planted outdoors. They bloom profusely during June, and some kinds during the summer. Valuable for trellises, porches, etc.

**M.**—The **Mosses** are very hardy and fragrant. On account of the beautiful buds for bouquets and cut-flowers, a favorite class with all. Mainly June bloomers, although some kinds bloom during the summer. The buds have mossy covering on the outer leaves. Require close pruning.

**Budded Roses** should be planted sufficiently deep so that the junction of the bud with the stock is from 2 to 3 inches below the surface of the earth.

**⚠** We cannot too forcibly direct attention to the above rule.

For the convenience of the customer in making selections, we print the common everyday classification of Red Rose, Pink Rose, White Rose, etc., directly after the name of the Rose. The more complete color description is also given.

**Agrippina.** (T.) Red. Blooms all summer and autumn. Color a rich, velvety crimson. Fine in the bud. The flowers are moderately double. Plant a moderate grower only, and, though not fragrant, is very appropriate and beautiful for beds on the lawn and for house pot culture. Suitable for winter garden.

**Alfred Colomb.** (H. P.) Dark red. Flower very large, of fine, globular form; a brilliant carmine-crimson. Raised from the Jacqueminot. **Extremely fragrant flower**, and in every way a superb Rose. Fine for general cultivation. Foliage large and handsome. A compact, handsome-shaped, very attractive Rose.





Caroline Marniesse.

**American Beauty.** (H. P.) Red. Flowers large, globular, very double, and of a full and very perfect form. Color a deep crimson; of delightful fragrance. Plant a vigorous grower and a constant bloomer. There is no more beautiful sight than "a bunch of American Beauties."

**Anne de Diesbach.** (H. P.) Red. Flowers large and showy, and particularly fine in bud. Color a beautiful shade of carmine. Very fragrant. A fine garden sort; a vigorous grower, and one of the hardiest.

**Baltimore Belle.** (C.) White. Flowers very double, compact, and borne in large clusters; pale blush when first open, becoming nearly white. Flowers produced late in the summer, when other summer Roses are gone. **Hardy.** When it is desired to cover walls, unsightly buildings, etc., this and the Crimson Rambler, Gem, and Queen of the Prairie, are very efficient. Plant a vigorous grower.

**Baron de Bonstetten.** (H. P.) Dark red. Blackish crimson, with vivid red shadings. Large, full, and very fragrant.

**Baroness Rothschild.** (H. P.) Pink. One of the most beautiful of Roses. The flowers, immense in size, are produced at the ends of strong stems, and closely surrounded with beautiful green leaves, thus setting off the exquisite pink flowers in the most effective manner. A late bloomer. A very choice variety.

**Blanche Moreau.** (M.) Pure white. Flowers full, large and of perfect form. The buds and flowers produced in clusters, and freely furnished with deep green moss. **Hardy.** Flowers in the autumn, at a time when other Moss Roses are not to be had, and therefore very desirable. Plant a vigorous grower.

**Caprice.** (H. P.) Pink, striped with white and red. Flower large; a decided novelty. Of the many striped hardy Roses, this is easily the best, the marks being very distinct. Easily grown, and a free bloomer.

**Caroline de Sansal.** (H. P.) Pale pink. Flower flesh color, turning to blush. Large size, full and flat, sometimes irregular in form; generally best in the autumn. Plant one of the hardiest.

**Caroline Marniesse.** (H. P.) White. A hardy Noisette, that is **always** in bloom. As a bedding Rose, this variety has no superior. It is literally a continuous bloomer, the plant being constantly covered with flowers the entire summer. **Order Caroline Marniesse, if you want a desirable hardy white Rose.** The flowers are of medium size, full and double, and borne in very pretty clusters. Color pure white, slightly tinged with pink, and with the delicate fragrance of the dainty Tea Rose. The bush is low-growing, 18 to 24 inches high, and especially adapted for a border or for cemetery planting. It is entirely hardy.

**Climbing Jules Margottin.** (C.) Red. Among the best of all the moderate-growing climbing sorts. Color carmine. Is fine in open flower or bud. **Hardy.** May be grown as a pillar Rose, or by pruning kept in bush form. A vigorous grower, blooming at intervals from June to November. Does not make growth enough to cover large buildings, but is desirable for covering a trellis or pillar.

**Climbing Victor Verdier.** (C.) Red. Flower is a brilliant carmine, edged with purple. **Hardy.** Very large, full and fragrant. Blooms at intervals from June to November. Does not make growth enough to cover large buildings, but is desirable for covering a trellis or pillar.

**Clio.** (H. P.) Light pink. This is one of the finest Roses. It is of the most delicate texture and coloring imaginable. The plant is a very vigorous grower, entirely hardy, and the flowers are very freely produced throughout the summer. Flowers large, of fine, globular form; flesh color, shaded in the center with rosy pink. Plant of vigorous growth, entirely hardy; handsome foliage.

**Coquette des Alpes.** (H. P.) **White.** Flowers medium size; white, slightly shaded with pink; in shape, semi-cupped. Generally flowers in small clusters, and blooms freely throughout the entire season. A choice variety. This is of the Hybrid Noisette class.

**Comtesse de Murinais.** (M.) **White, tinged with flesh color.** Beautifully mossed. **Hardy.** The beautiful buds are very desirable for bouquets and cut-flowers. Blooms in June and July. Plant a vigorous grower and very hardy.

**Crested Moss.** (M.) **Pink.** The buds are graceful, surrounded with a mossy fringe and crest; are a deep pink, fragrant and very attractive. Blooms in June and July. **Hardy.** For cut-flowers and bouquets the blooms are very desirable and handsome. The plant is free from mildew.

**Crimson Globe.** (M.) **Red.** Plant very strong-growing and free-blooming. **Hardy.** Buds rather pointed and well mossed, and of a fine, clear, rich crimson. The open flowers have the beautiful rounded form of Hybrid Perpetual Roses, instead of the rather flat, less attractive shape of other Moss Roses.

**Crimson Rambler.** (C.) **Red. Hardy.** This wonderful new Japan Rose is one of the most important and valuable hardy Roses introduced in many years. It is a running or climbing Rose, vigorous in growth and **entirely hardy.** It begins to flower about the middle of June, and remains in bloom a number of weeks. Produces a marvelous abundance of clusters made up of from 20 to 50 brilliant crimson flowers, each flower perfect in shape, from 1 to 1½ inches across. The clusters cover the entire length of the bush, making a magnificent appearance against the background of beautiful glossy foliage. We cannot say too much in praise of this beautiful Rose, and our customers will make no mistake in purchasing it. An elegant Rose for verandas, walls, pillars and fences. From Philadelphia Record, June 10, 1899:

A Crimson Rambler Rose bush that contains 9,600 blooms is the remarkable feature of the garden at the home of John Parry, No. 3517 North Thirty-fifth street, Falls of Schuylkill. Last year the bush was considered a wonder, but then the blooms numbered only 6,500. Every day hundreds of people visit Mr. Parry's place and admire the bush, which its owner displays with great pride. Each cluster of the Rose is a bouquet in itself. The bush is 10 feet in height, and spreads over quite an amount of space. Mr. Parry is confident that he has the champion Rose bush in this section of the country.

**Earl of Dufferin.** (H. P.) **Dark red.** One of the finest Roses of recent years. Flower is a rich, brilliant, dark velvety crimson, shaded with dark maroon. **For a beautiful dark red Rose, plant the Earl of Dufferin.** A large, full and perfectly formed Rose, and delightfully fragrant. A valuable addition to any collection.

**Fisher Holmes.** (H. P.) **Red.** An extra large and beautiful Rose. Rich scarlet, shaded with deep, velvety crimson. Resembles General Jacqueminot, but is fuller, darker, and a more constant bloomer.

**Gracilis.** (M.) **Deep pink** buds, surrounded with delicate fringe-like moss. One of the most beautiful of all the Moss Roses, having graceful buds. **Hardy.** We highly recommend Gracilis. Blooms in June and July.

**Gem of the Prairie.** (C.) **Red.** Flowers very large and flat, and produced in clusters. Color red, occasionally blotched with white. One of the few climbing Roses that is fragrant. Flowering season June and July. **Hardy.** This and the Crimson Rambler, Queen of the Prairie and Baltimore Belle, are very efficient when the covering of some large space with a screen of Roses is desired, as they are all very strong, rapid growers.

**General Tartas.** (T.) **Red.** Flower a rosy carmine, shaded purple. Free bloomer.

**General Washington.** (H. P.) **Red.** Flowers bright, rich crimson, and perfectly double. Blossoms freely in June.



Crimson Rambler.



**La France.**

**General Jacqueminot.** (H. P.) Red. Without a rival for fragrance and richness of color. Beautiful in the bud state, and also when open. One of the best known Hybrid Perpetuals, and truly deserving of the popularity it has gained. Not as full a Rose as some, but is very attractive and effective. Blooms freely all summer. A bunch of "Jack" Roses is certainly most beautiful.

**Harrison's Yellow.** Yellow. Hardy. Flowers of medium size, semi-double, of a golden yellow. Blooms freely in June. The plant is a strong-growing bush. If pruned closely will not bloom, as the flowers are produced from the terminal shoots of the wood, so only shorten a few inches the shoots left for flowering.

**Homer.** (T.) Salmon pink. The beautiful and delicate buds vary in color somewhat. A vigorous grower and a constant bloomer all summer and autumn, and grows at its best outdoors. While quite hardy, should be protected winters the same as all the Teas. Flowers have a delightful, sweet fragrance, and are at their best as the season advances, reaching perfection in the fall. None equal the Tea Rose class for bouquet and cut-flower purposes.

**John Hopper.** (H. P.) Red. Brilliant red, with crimson center, and large and fine in form. Very fragrant.

**La France.** (Hybrid Tea.) Light pink. The delicate fragrance of the La France is appreciated by everyone who grows or wears a Rose. One of the most perfect types of a cut-flower Rose. A silvery rose, shaded with pink, with a satiny sheen over all the petals, unsurpassed in delicate coloring. Flowers large, and produced at intervals from June to Nov. A moderate grower.

**La Reine.** (H. P.) Pink. Flower large, moderately full, color pink. The plant is very free-flowering, and one of the most hardy.

**Lord Penzance.** See Sweetbriers.

**Madame Gabriel Luizet.** (H. P.) Pink. Perfection in color, being a clear, silvery pink. Flowers extra large, with broad, shell-like petals; a cup-shaped, elegantly formed, very double and full Rose. Hardy and easily grown, and a profuse bloomer in June. A bunch of these pink Roses is superb.

**Madam Plantier.** (H. P.) White. Flower full and above medium size; pure white, and produced abundantly early in the summer-flowering season.

**Magna Charta.** (H. P.) Pink. Flowers extra large, globular, and very double; fragrant. Color pink, suffused with carmine. Blooms profusely; season June and July. A valuable Rose, worthy of being extensively planted.

**Marchioness of Lorne.** (H. P.) Red. Large, full and cup-shaped, with buds long and very handsome. Remarkable for constant blooming. Color a rich red, shaded a vivid carmine. Plant a vigorous grower.

**Marechal Niel.** (T.) Deep yellow. An ideal climbing Tea Rose. The flower is peerless in its deep yellow color and perfect in its very full, globular form and immense size, blooming at intervals from June to July. Is highly scented. Plant is of delicate constitution, and requires careful treatment to secure satisfactory results. A natural climber, and should not be pruned severely. Valuable for training to climb up a sheltered pillar.

**Margaret Dickson.** (H. P.) White. This is the finest white Hybrid Perpetual yet produced, and is a long step forward in Rose culture. Some idea of its beauty and worth can be formed from the fact that it was awarded the gold medal of the National Rose Society of England and six First-class Certificates. The flowers are of the purest white, with pale flesh centers; petals very large, shell-shaped; a Rose magnificent in form and very large, rivaling in size and in its late fall blooming the Paul Neyron. Is fragrant. Foliage very large, dark green. A vigorous grower, and for hardiness is called "ironclad."

**Marshall P. Wilder.** (H. P.) Red. A Rose of unusual excellence. Raised from the seed of General Jacqueminot. It is of vigorous growth, with healthy foliage, and a free bloomer. **Marshall P. Wilder** is one of the very best. Flowers large, semi-globular, full, well formed. Color a cherry-carmine; very attractive. Very fragrant. Flowers profusely during a long flowering season.

**Maurice Bernardin.** (H. P.) Red. A good, free-blooming sort. Flowers large, generally in clusters. Perhaps the most prolific of all crimson Roses in the spring.

**Mrs. John Laing.** (H. P.) Satiny pink. For outdoor planting, this is one of the best Roses introduced for many years. Entirely hardy, and blooms almost constantly throughout the season. Flowers of immense size, full and double, exceedingly sweet and fragrant, borne in great profusion on long, stiff stems. The buds are long and pointed, and extremely pretty. Color of flower is a clear, bright shiny pink, with the most exquisite shadings. Plant a vigorous grower. One of the most satisfactory varieties.

**Paul Neyron.** (H. P.) Deep pink. By far the largest flower of any Rose under cultivation, often 5 inches in diameter. A free bloomer, and very desirable as a garden Rose. Strong in growth, often attaining 6 to 7 feet in a season.

**Perpetual Red Moss.** (M.) Hardy.  
**Perpetual White Moss.** (M.) Hardy.

*Having many calls for a good red Moss Rose or a good white Moss Rose, we book orders under these titles, and supply the finest varieties of the color selected by the customer. Let your order read "Perpetual Red Moss," or "Perpetual White Moss," to designate the color or colors of flowers wanted.*

**Persian Yellow.** Yellow. Hardy. "The hardy yellow Rose of our mother's garden." Flowers nearly full, small but handsome, and a very early bloomer. Season of flower June and July. If pruned too closely, they will not bloom, as the flowers are produced from the terminal shoots of the old wood, so only shorten a few inches the shoots left for flowering.

**Pius IX.** (H. P.) Deep pink, tinged with carmine. Profuse bloomer, and of strong, vigorous growth.

**Prince Camille de Rohan.** (H. P.) Darkest red. A magnificent Rose, and very desirable for its large, handsome, fragrant flowers, which are produced so abundantly. Color is a deep, rich, velvety crimson, which runs into a deep maroon, shaded black; in fact, it appears black at a short distance.

**Princess Adelaide.** (M.) Pink. Flower of medium size and good form. Pale rose color. Good in bud or flower. Hardy. Foliage very blotched or variegated. Should not be pruned severely. Blooms in June and July.

**Queen of the Prairie.** (C.) Red. Of rapid growth, and with luxuriant foliage. Flowers bright, rosy red, sometimes striped with white, produced in large clusters. Blooms in June and July. Pretty on porches or trained to pillars. Hardy. When it is desired to cover walls, unsightly buildings, etc., this and the Crimson Rambler, Baltimore Belle, and Gem of the Prairie are very efficient.

**Rugosa Roses.** Hardy. 'The plant' is highly ornamental on account of its good habit and beautiful, glossy foliage. We have the **Rugosa alba**, with single, pure white flowers of five petals; highly scented. Also



Margaret Dickson.





Rosa Rugosa.

the **Rugosa rubra**, with single, beautiful bright, rosy crimson flowers, succeeded by large berries of a rich, rosy red color, which are a great addition to the ornamental character of the plant. All of Japanese origin.

**Salet.** (M.) Bright red. Flower full, pretty in the bud; an abundant bloomer. Flowers in the autumn, and valuable, as they come at a time of the year when "summer" Moss Roses are not to be had. **Hardy.** Plant a good, fair grower.



Yellow Rambler.

**Souvenir de la Malmaison.** (T.) Pinkish white. Color a delicate flesh, shaded with fawn. Flower flat in form; very large for a Tea. A moderate grower. Plant not quite hardy, but a slight protection is sufficient in the winter. A continual bloomer at intervals from June to November, with rich, luxuriant foliage, and is most beautiful in the autumn. Flowers for the most part are produced in clusters, well shaped and somewhat fragrant. Suitable for planting singly or for low beds on the lawn.

**White Rambler.** (C.) White. This Rose is a valuable addition to the list of climbers. **Hardy.** The flowers are of the purest snow white, blooming in clusters, completely covering the plant as the Crimson Rambler does. Blooms about the middle of June, the flowers remaining on the plant for four or five weeks.

**Yellow Rambler.** (C.) Yellow. Markedly similar to the Crimson Rambler. Flower is 2 to 2½ inches in diameter, growing in clusters of from 20 to 50. Yellow in the bud, but cream-white when fully open. Beautifully fragrant. **Hardy.** Plant vigorous and free-blooming, and the flowers remaining on the bush for weeks. A bush in full bloom is one of the most beautiful sights imaginable.

#### Sweetbriers, Lord Penzance's Hybrids.<sup>7</sup>

These lovely Hybrids, apart from their extreme beauty, are most interesting, being crosses between the Common Sweetbrier and various garden Roses. It is certain that they are a great acquisition. Like their parent, the common Sweetbrier, the foliage is deliciously scented. The flowers are of the most beautiful tints, and produced in great profusion. Not the least of their recommendations is the fact that they are perfectly hardy, even in the coldest situations, and possess a robust vigor which is quite astonishing, bushes 4 or 5 years old throwing up

**Sweetbriers, Lord Penzance's Hybrids, continued.** shoots 10, 12, and even 15 feet high. These, when covered with flowers of the most delicate shades, have a most gorgeous effect. They should not be trimmed.

**Sweetbrier, Anne of Celerstein.** Dark crimson; branching habit.

**Sweetbrier, Brenda.** Maiden's blush or peach; dainty in color and shade. One of the prettiest flowers imaginable.

**Sweetbrier, Lady Penzance.** Beautiful, soft tint of copper, with a peculiar metallic luster; the base of each petal is a bright yellow; very free flowering, with a delicious perfume from foliage and flower; a wonderful grower; shoots pendulous.

**Sweetbrier, Lord Penzance.** Soft shade of fawn or ecru, passing to a lovely emerald-yellow in the center, sometimes toned with a most delicate pink; a good grower and abundant bloomer; very sweet-scented.

**Sweetbrier, Meg Merrilies.** Gorgeous crimson; very free flowering; seeds abundantly.

**Sweetbrier, Rose Bradwardine.** Beautiful clear rose; perfect in shape; very profuse, strong.

**Sweetbrier, Red, Pink, White.**

*When customers state color prefer-*

*ence, and desire us to do so, we will select the varieties best for their section. Let the order read, "Red Sweetbrier," "Pink Sweetbrier," etc.*

#### Trailing or Creeping Rose, Wichuraiana.

A low, trailing species, its stems creeping on the earth almost as closely as the Ivy. The flowers are produced in the greatest profusion, in clusters on the end of every branch, after the June roses are past, from the first week in July, throughout the month. They are pure white,  $1\frac{1}{2}$  to 2 inches across, with yellow stamens, and have the strong fragrance of the Banksia Rose. It is quite hardy, with the exception of the latest immature growth, which may be cut back to some extent. This variety has proved valuable as a covering for banks, rockeries, etc., and for use in cemeteries. A distinct and valuable variety from Japan.

#### Tree Rose.

These are grafted on tall stems of the Dog Rose, forming a half-weeping head 3 or 4 feet from the ground. They can be furnished in dark and light colors only, but the particular varieties grafted in the head cannot be named. Orders must be by color only, thus: "Tree Rose, Light," or "Tree Rose, Dark." One color only on each tree.



Rosa Wichuraiana.

*Be sure and enrich well with manure the ground where you plant the Rose. Not only do this when you first set them out, but continue to do so each year.*





Hedge of California Privet.

## Hedge Plants.

Hedges are valuable as a defence against animals, as windbreaks to protect orchards, gardens or farms unduly exposed, and as ornamental fences or screens to mark the boundaries of a lawn or cemetery lot

### Hedges for Defence.

**Honey Locust.** For turning cattle and as a farm hedge, Honey Locust is much the best. It is of vigorous growth, perfectly hardy; thrives with ordinary care, and is sufficiently thorny to be impenetrable. It bears the shears well. Plant 9 to 12 inches apart, or a very dense hedge for defence or ornament can be made by planting in two rows, about 9 inches apart and setting the plants in the rows alternately.



Norway Spruce.

### Hedges for Windbreaks, or High Screens.

**Norway Spruce** is best. Its vigorous habit, rapid, dense growth when properly sheared or pruned, large size and entire hardiness, are characteristics not easily obtained in any other evergreen. For description, see under Evergreen Trees and Hedge Plants.

**American Arborvitæ** comes next. Belts of Pines are also useful as a protection. For description, see under Evergreen Trees and Hedge Plants.

### Hedges as an Ornamental Fence or Low Screen, for Lawn and Cemetery.

**California Privet** (*Ligustrum ovalifolium*). Hardy. A free, compact grower in most all manner of soils. Bears shearing well. Valuable and handsome for hedge. Should be severely headed-in at planting, to make it throw up numerous shoots at the base. Without such shoots at the base a good hedge cannot be made. Old hedges of this species that have lost their lower branches may be renovated by cutting down to within 6 to 10 inches of the ground in the spring, before growth begins, when numerous new strong shoots will come out from the stubs, and soon a new and well-formed hedge will result.

**American Arborvitæ** and **Norway Spruce.** Described under Evergreen Trees and Hedges.

# Insects and Fungous Enemies of Fruit, Trees and Plants.

Only a few years ago little or nothing was known about fungous diseases, and almost nothing about the insects that trouble the fruit-grower. But we know now the life history of all the common insects, as well as fungous diseases, and know how to combat them at each stage of their life. It is only necessary to follow directions, and be prompt and thorough, to insure success. A man will spend weeks cultivating his corn field, that will barely yield a crop to cover the labor, and begrudge a week's time to his fruit, that will yield him returns running into hundreds of dollars' profit per acre. We give below some general directions for spraying and caring for fruit, that, if followed, will insure success.

## INSECTS.

There are some insects that escape our attention entirely unless we look closely. Among these are the gnats, mites, scale lice and the ordinary plant-lice. These are all insects that live by sucking the sap of the plant for food, and have to be combated with some mixture that dries on them, stopping up their breathing pores, which are arranged along their sides, or else by their caustic action eats away their tissues and destroys them. They have a great many natural enemies. Among them are the Ichneumon Flies—a fly looking much like a tiny wasp, and the Lady Bug. The insects that eat the leaves for food, such as the Potato Bug, the Apple Tree Tent-Caterpillar, etc., are killed by poisoning their food, and some form of arsenic has been found best for this purpose.

## FUNGUS.

Fungus is a plant—a parasitic plant—living by throwing its roots in the tissues of the plant on which it lives, and appropriating its sap. It grows very rapidly when once started, and, as it is beneath the skin of the leaf or bark during the greater part of its life, if once started it is hard to stop, so that to be successfully combated work must be begun before any signs of the fungus appear. Usually fungus shows itself conspicuously only when it has gone to seed. Its seeds are called spores, and are transmitted from plant to plant by the wind. To the naked eye they appear like grains of very fine dust.

## FORMULAS.

**NOTE.**—Wherever lime is called for in the following mixtures, it is to be weighed before slaking, then slaked and the creamy white wash, after straining to remove lumps, added to the solution.

**Formula 1, Paris Green.** Paris Green, 3 ozs.; lime, 1 lb.; water, 1 barrel. Keep well stirred.

**Formula 2, White Arsenic Solution.** This is to take the place of Paris Green, and is very much cheaper, costing about 4 cents per barrel. Boil 2 pounds of white arsenic, with 8 pounds of sal soda (common washing soda) for 15 minutes, or till dissolved, leaving only a small muddy sediment at the bottom. Put this solution in a 2-gallon jug and label "Poison, stock material for spraying mixture."

Use one pint of this to a barrel of water. But this will burn the leaves and greatly injure the tree if lime is not added, so to each barrel of mixture add 2 pounds of lime.

**Formula 3, Bordeaux Mixture.** Copper sulphate, 4 pounds; lime, 3 pounds; water, one barrel. Dissolve the copper in a part of the water, slake the lime in another part, and mix, filling the barrel with water. Another way, and a better way where several barrels are to be made, is as follows: Make several bags of burlap or old sacking. Weigh 4 pounds of copper sulphate in each. Slake a bushel of lime in a barrel of water. Go to your druggist and get a cent's worth of ferro-cyanide of potassium, and get an extra label to paste on your bottle. Put this ferro-cyanide in a 1-ounce bottle, and fill with water. It will all dissolve, or nearly all. Paste on your poison label, for it is very poisonous. To prepare the mixture: Fill a barrel part full of water, and hang a bag of copper in it, so that it does not rest on the bottom. If it rests on the bottom it will take a day or so to dissolve, while if you suspend it it will dissolve in an hour. When copper is dissolved, stir up the barrel of lime and dip out enough, adding it to the copper, till a drop of the ferro-cyanide solution does not turn brown when added to it. It is then neutral, and ready for use.

**Bordeaux Mixture** is for fungous diseases, and by adding Paris Green to it, or white arsenic solution, it can be made a remedy for both fungus and insects. Three ounces of Paris green to the barrel is enough, or 1 pint of the stock solution of white arsenic. If the latter is used, 2 pounds more of lime must be added.

**Formula 4, Kerosene Emulsion.** Kerosene emulsion is made by adding 2 parts of kerosene to 1 part of a solution made by dissolving half a pound of hard soap in 1 gallon of boiling rain-water, and churning the mixture through a force pump with a rather small nozzle until the whole forms a creamy mass, that will thicken into a jelly-like substance on cooling. The soap solution should be hot when the kerosene is added, but of course **must not be near a fire**. The emulsion thus made is diluted before using with 9 parts of cold water.



## COMMON FUNGOUS DISEASES.

**Apple and Pear Blight.** Follow directions in Spraying Calendar, and, in addition, cut off and burn all affected parts as soon as noticed.

**Apple Scab.** Follow Spraying Calendar.

**Grape Rot.** Follow Spraying Calendar. Manilla paper bags, securely pinned over the bunches, early in the season, are a preventive of the rot, and also a protection against birds, wasps, and other insects.

**Powdery Mildew on Grapes.** Follow Spraying Calendar, and dust the vines with powdered sulphur two or three times during the season.

**Black-knot of Plum and Cherry.** Spray with Formula 3, and cut off all knots, cutting back into good wood, and burn.

## INSECTS.

**Apple-tree Borer.** The round-headed apple-tree borer (*Saperda candida*) is a larva hatched from the egg of a brownish beetle, with two longitudinal white stripes along its back, which deposits its eggs late in June or July near the surface of the ground, where the bark is tender. As soon as hatched, the grub gnaws its way into the inner bark or sapwood, and continues to girdle and perforate the trunk during three summers, coming out of the tree at the end of three years in the beetle form. There are a number of remedies for this pest. (1) Examine the tree, and cut the borers out with the point of a knife, or kill them by thrusting a flexible wire as far as possible into the holes. The place where the larva enters can usually be detected by the sawdust-like castings that are pushed out. (2) To prevent the parent beetle from laying eggs, apply to trunk of tree, the last of April or early in May, and again about a month later, a solution made by mixing 1 quart of soft soap with 2 gallons of water heated to boiling, and then add a pint of crude carbolic acid. Apply with a scrub-brush or cloth.

**Flat-headed Apple-tree Borer** (*Chrysobothris femorata*). The adult is a beetle about half an inch long (belonging to the Snapping Beetle family), and is very dark green above, with bronze reflections, especially in the furrows of the wing covers. It appears in June and July, and lays its eggs on the trunk and limbs of apple, peach, oak, and other trees. The larva first bores into the bark and sapwood, and later into the solid wood. The larva matures in one year. Rub the branches and trunk with soap during June and July, or place a piece of soap in the crotch of the tree, so that the rains will dissolve it and wash it down over the trunk.

**Peach Borer** (*Sannina exilis*). These grubs hatch from eggs deposited (usually during May, but also at different times until last of September) by a slender, dark blue 4-winged moth. They become small white borers, penetrating and devouring the sapwood, emerging again the next spring in the winged form, and depositing eggs for another generation. The remedies are: (1) Cut out the borers, as recommended under Apple-tree Borers. (2) Earth up (about 1 foot high) around the trunks of the trees in early spring, and level down in October, and when leveling down, if any bugs have entered, trace and kill them. (3) If you don't earth up, apply the solution recommended for painting the trunks of apple trees for borers.

All borers that infest nut-trees, shade-trees and grape-vines should be hunted out and killed.

**Apple-tree Tent-Caterpillar** (*Clisiocampa Americana*). This is the larva of a dull, reddish brown or yellowish brown moth, with 2 whitish lines on the fore-wings. The eggs hatch in early spring, just before the leaves appear. The larvæ that first hatch feed on the unopened buds. The entire brood that hatch from one cluster of eggs keep together and build a tent, in which they live. The larvæ leave the tent daily in search of food, and spin a silken thread wherever they go. They are fully grown the latter part of May or early June, and at that time may be found crawling about the ground in search of a suitable place to spin their cocoon. The larvæ may be distinguished from the **Forest Tent-Caterpillar** by having a white line down the back, while the Forest Tent-Caterpillar has a row of spots, one on each segment. The adult moths appear about the middle of June. The eggs are soon laid, each female laying all her eggs in a single ring-like cluster about a twig, where they remain unhatched till the following spring. The easiest way to fight this pest is to destroy the webs, containing the larvæ, as soon as they appear in the spring. This should be done early in the morning or late in the afternoon, or on a cold day, when the larvæ are not scattered over the tree feeding. Use a pole with a forked end, twisting the nest on it, and stamping the worms to death. On small trees, strip off by hand, or apply Formula 1 or 2 at the same time as for Codlin Moth, as the same application destroys both.

**The Canker Worm** (*Paleacrita vernata* and *Alsophila pometaria*). The sluggish, wingless female moth rises out of the ground very early in the spring, and slowly ascends the trunk of the tree, laying eggs in clusters on the bark, to which they are secured by a grayish varnish. These usually hatch about the time the young leaves begin to grow, when the little worms at once begin to feed on the foliage. The larva is a "measuring worm" or "loop worm" of a pale brownish color, marked with darker brown and yellow. Encircle the trunk of the tree with bands of canvas or heavy paper 4 or 5 inches wide, which have been thickly smeared with tar, thus trapping the female moth. Or use Formula 1 or 2, at the same time, and as recommended for Codlin Moth.

**Grape Flea Beetle** (*Haltica chalybea*). So called because their thighs are very large, and fitted for jumping. The beetle is about one-sixth of an inch in length, and of a dark, steel-blue color. It eats the buds in early spring, and later gnaws holes in the leaves. In May and June the sluggish larvæ, brown in color, may also be found feeding on the upper surface of the leaves. Spray with Formulas 1 and 2—early for the beetles, and later, in May and June, for the grubs.

**The Grape Leaf-Hopper** (*Erythroneura vitis*). Pass between the rows at night with a torch, shaking the vines to start the insects. They will fly to the light and be destroyed.

**Plant Lice.** Spray with kerosene emulsion (Formula 3).

**Apple Worm or Codlin Moth** (*Carpocapsa pomonella*). The parent moth of this insect deposits its eggs in spring in the blossom end of the young apple, before the latter has turned down on its stem. From this egg there hatches a small worm that eats its way toward the core, feeding and increasing in size as the apple develops, causing the fruit to drop prematurely. Apply Formula 1 or 2, just after the blossoms have fallen, and before the young apple has turned down on the stem; and in case there is a washing rain afterward, repeat the application. Apply by means of a force-pump and spray-nozzle, throwing the liquid above the tree, so that it will settle in a fine mist.

**Curculio** (*Conotrachelus nenuphar*), a great enemy of the plum, apricot and cherry. Jar the trees, and catch the insects upon sheets and burn or likewise destroy them. Another remedy is to spray the plum tree soon after blossoms fall with Formula 1 or 2, repeating the application once or twice at intervals of ten days.

**Army Worm** (*Leucania unipuncta*). This is the larva of a moth of dull brownish color, marked in the center of each fore-wing with a distinct white spot. The larva is 1½ inches long when full grown, and is striped with black, yellow and green. It is present every year, but attracts attention only when it appears in great numbers. In seasons of serious outbreak it usually appears in limited areas in meadows or pastures. After destroying the vegetation in the field where the eggs were laid, it marches like an army to another field. If discovered before it has left these places, it can be confined by surrounding the field with a ditch, or killed by Formula 1 or 2, or other fields may be protected by a ditch with vertical walls in the same way, and by digging a post-hole here and there in the bottom of the ditch the worms will fall to the bottom, and can be destroyed. See Spraying Calendar, next page.

### SUITABLE DISTANCES FOR PLANTING.

Apples, Standard . . . . .	32 to 40	feet apart each way.
Apricots . . . . .	16 to 18	" " " "
Blackberries . . . . .	2 feet in row,	6 feet between rows.
Cherries, Sweet . . . . .	18 to 20	feet apart each way.
" Sour . . . . .	16 to 18	" " " "
Currants . . . . .	4 to 5	" " " "
Gooseberries . . . . .	4 to 5	" " " "
Nectarines . . . . .	16 to 18	" " " "
Pears, Standard . . . . .	20	" " " "
" Dwarf . . . . .	10 to 12	" " " "
Plums . . . . .	16 to 18	" " " "
Peaches . . . . .	16 to 18	" " " "
Quinces . . . . .	14 to 15	" " " "
Raspberries . . . . .	3 to 7	" " " "

### NUMBER REQUIRED FOR AN ACRE.

At 3 feet apart each way . . . . .	4,840
At 4 " " " " . . . . .	2,729
At 5 " " " " . . . . .	1,745
At 6 " " " " . . . . .	1,200
At 8 " " " " . . . . .	680
At 10 " " " " . . . . .	430
At 12 " " " " . . . . .	325
At 14 " " " " . . . . .	222
At 15 " " " " . . . . .	200
At 16 " " " " . . . . .	170
At 18 " " " " . . . . .	135
At 20 " " " " . . . . .	110
At 25 " " " " . . . . .	70
At 30 " " " " . . . . .	50
At 32 " " " " . . . . .	43
At 40 " " " " . . . . .	28

To estimate the number of plants required for an acre at any given distance, multiply the distance between the rows by the distance between the plants, which will give the number of square feet allotted to each plant, and divide the number of square feet in an acre (43,560) by this number. The quotient will be the number of plants required.



## SPRAYING CALENDAR.

**EXPLANATION.**—While the number of applications recommended will be found desirable in seasons when the fungi are particularly troublesome, a smaller number may often suffice; those printed in bold-face are of most value, and can generally be made with profit. **Whenever an asterisk (\*) is used, it cautions against spraying with poisons while the plants are in blossom; a dagger (†) indicates that there is danger in making an application within three weeks of the time the fruit is to be used as food.**

PLANTS	1st APPLICATION	2d APPLICATION	3d APPLICATION	4th APPLICATION
<b>Apple,</b> <i>Scab, codlin moth, bud moth, caterpillar, canker worm.</i>	After the blossoms have formed, but before they open, Bordeaux.	Within a week after blossoms fall Bordeaux and Paris Green.	10 to 14 days later, Bordeaux and Paris Green.	10 to 14 days later, Bordeaux.
<b>Cherry,</b> <i>Rot, aphid, curculio, slug, knot.</i>	As flower buds appear, but before they open, Bordeaux; for aphid, use Kerosene Emulsion.	When fruit has set, Bordeaux and Paris Green.*	10 to 14 days later, if signs of rot appear, repeat.	10 to 14 days later, Ammoniacal Carbonate of Copper.
<b>Currant,</b> <i>Mildew, worms</i>	As soon as worms are found on lower and inner leaves, Paris Green.	If they reappear, repeat, adding Bordeaux for mildew.†	If worms still trouble, Pyrethrum or Hellebore.*	After fruit is picked, Bordeaux.
<b>Gooseberry,</b> <i>Mildew, worms</i>	As leaves open, Bordeaux and Paris Green.	In 10 to 14 days repeat with both.	10 to 14 days later, Sulphide of Potash, on English varieties.	10 to 14 days later, repeat.
<b>Grape,</b> <i>Fungous diseases, flea beetle.</i>	When first leaves are half grown, Bordeaux and Paris Green.	As soon as the fruit has set, repeat.*	10 to 14 days later, repeat.	10 to 14 days later, if disease is present, apply Bordeaux.
<b>Peach, Apricot,</b> <i>Rot, curculio, leaf curl, mildew.</i>	Before blossoms open, Bordeaux.	Within a week after fruit has set, Bordeaux and Paris Green.*	7 to 12 days later, repeat.	7 to 12 days later, repeat.
<b>Pear,</b> <i>Leaf-blight scab, psylla, codlin moth.</i>	Just before blossoms open, Bordeaux.*	Within a week after blossoms fall, Bordeaux and Paris Green.	8 to 12 days later, repeat.	10 to 16 days later, Bordeaux.
<b>Plum,</b> <i>Fungous diseases, rot, curculio, knot.</i>	Within a week after blossoms have fallen, repeat.*	10 to 12 days later, repeat.	10 to 20 days later, Bordeaux.	NOTE.—If black knots are found on plum or cherry trees, they should at once be cut out and burned.
<b>Quince,</b> <i>Leaf and fruit spots.</i>	When blossom buds appear, but before they open, Bordeaux.	When fruit has set, Bordeaux and Paris Green.*	10 to 12 days later, repeat.	10 to 20 days later, Bordeaux.
<b>Raspberry, Blackberry,</b> <i>Anthraxnose, rust.</i>	Cut out canes badly diseased with anthracnose and burn. Before buds open, spray with Copper Sulphate solution.	When new canes appear, Bordeaux and Paris Green.*	10 to 14 days later, repeat.†	NOTE.—If red rust appears, the entire stool affected should be grubbed out and burned.
<b>Rose,</b> <i>Aphid, worm.</i>	Kerosene Emulsion for aphid.	10 days later, Bordeaux and Paris Green.	Afterwards keep lice and caterpillars off by turning a fine stream from hose on under side of leaves.	

Do not spray with arsenites or copper compounds within three weeks of the time the sprayed portions are to be eaten. While there would be no danger of fatal effects resulting, it is best not to run any risk. Bordeaux mixture and other lime compounds should not be used upon rough or full-grown fruits even as late as that time. Not only does the lime disfigure the fruit, but the amount of copper is large.



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